COMMERCE YEARBOOK

1926

Vol. I—UNITED STATES

UNITED STATES
DEPARTMENT
OF COMMERCE

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DEPARTMENT OF COMMERCE
HERBERT HOOVER, SECRETARY

COMMERCE YEARBOOK
1926

Vol. I—UNITED STATES

COMPILED BY
THE BUREAU OF FOREIGN AND DOMESTIC COMMERCE
JULIUS KLEIN, DIRECTOR

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CONTENTS

Page

Letter of submittal VII

Summary XIII

Production, employment, and domestic trade 1
- Recent movements in manufacturing production 2
- Progress of production and advance in efficiency 13
- Census statistics of manufactures 24
- Developments in simplified practice 33
- Production and marketing of raw materials 37
- Wholesale and retail trade 42
- Employment, immigration, and wages 52

Wholesale, retail, and farm prices 66
- Wholesale prices in the United States 67
- Foreign wholesale prices 76
- Farmers' prices 78
- Retail prices and cost of living 79

Foreign trade 82
- General movement of trade 83
- Quantity and price changes 88
- Relationship of exports to production 90
- Relationship of imports to total materials used in manufacturing 96
- Commodity distribution of trade 97
- Geographical distribution of trade 111
- Trade of continental United States 126
- Trade with Canada and other northern North America 128
- Trade with Latin America, by countries 129
- Trade with Europe, by countries 140
- Trade with Asia and Oceania, by countries 153
- Trade with Africa, by countries 161

Agricultural products and foodstuffs 163
- Agricultural products in general 163
- Wheat and flour 196
- Cotton 205
- Sugar 211
- Tobacco 219
- Livestock and meat products 235
- Dairy and poultry products 248
- Canned and dried fruits and vegetables 252
- Fisheries and fish canning 257

Fuel and power 260
- General aspects 260
- Electric light and power 265
- Coal 272
- Coke 287
- Manufactured gas 289
- Petroleum and refined products 292
- Natural gas and natural-gas gasoline 309

Page
Construction 312
  Position and character of the industry 313
  Construction activity 314
  Building costs 326
  Labor 328
  Financing 329
  Market conditions 331
  Progressive construction tendencies 331
Construction materials 335
  Lumber and affiliated products 335
  Stone, clay, and glass products 347
  Cement 348
  Structural steel 352
  Brick and other clay building materials 353
  Glass 355
  Building stone 357
  Sand and gravel 358
  Simplification of building materials 359
Metals 360
  Iron and steel 360
  Copper 382
  Lead 390
  Zinc 394
  Aluminum 398
  Tin 400
  Simplification in nonferrous metal products 401
Machinery 402
  Development of the industry in general 402
  Industrial machinery 405
  Railway locomotives and cars 415
  Electrical equipment and materials 418
  Agricultural machinery and equipment 423
Automotive products 430
  Passenger cars and motor trucks 431
  Motor cycles 446
  Aircraft 447
Rubber and rubber products 449
  Crude rubber 449
  Rubber manufactures 456
  Foreign trade 465
Textiles and clothing 470
  Cotton goods 473
  Wool and wool manufactures 492
  Knit goods 504
  Silk and rayon manufactures 508
  Manufactures of miscellaneous fibers 515
  Wearing apparel 517
Leather and leather products 523
  Leather 523
  Leather manufactures 534
    Boots and shoes 535
  Blackings, polishes, stains, and dressings 544

Page
Paper and printing 545
  Pulp, paper, and paper manufactures 546
  Printing and publishing 556
Chemicals and related products 561
  Production 561
  Market conditions and price movements 566
  Foreign trade 567
Transportation and communication 578
  Railway transportation 578
  Packing 603
  Motor transportation 606
  Inland waterways 609
  Ocean shipping 614
  Civil aeronautics 627
  Communication—radio, telephones, and telegraphs 632
Banking and finance 636
  Banking situation 637
  Money rates 646
  Bank clearings and debits to individual accounts 647
  Life insurance 649
  Savings 651
  Stock and circulation of money 652
  Gold movement 654
  Foreign exchange 655
  Security markets 659
  United States Government finance 663

LETTER OF SUBMITTAL

Department of Commerce,
Bureau of Foreign and Domestic Commerce,
Washington, June 1, 1927.

Sir: I have the honor to submit herewith for publication the fifth issue of the Commerce Yearbook. The greatly increased sale of the last issue indicates the appreciation of American business men, economists, publicists, editors, and others of this authoritative economic review of the year. The Commerce Yearbook is this year being issued in two volumes in order to increase its scope and general usefulness. Volume I contains detailed information concerning business conditions in the United States, while Volume II will contain similar data, though in somewhat less detail, for about 70 foreign countries and for the noncontiguous Territories of the United States.

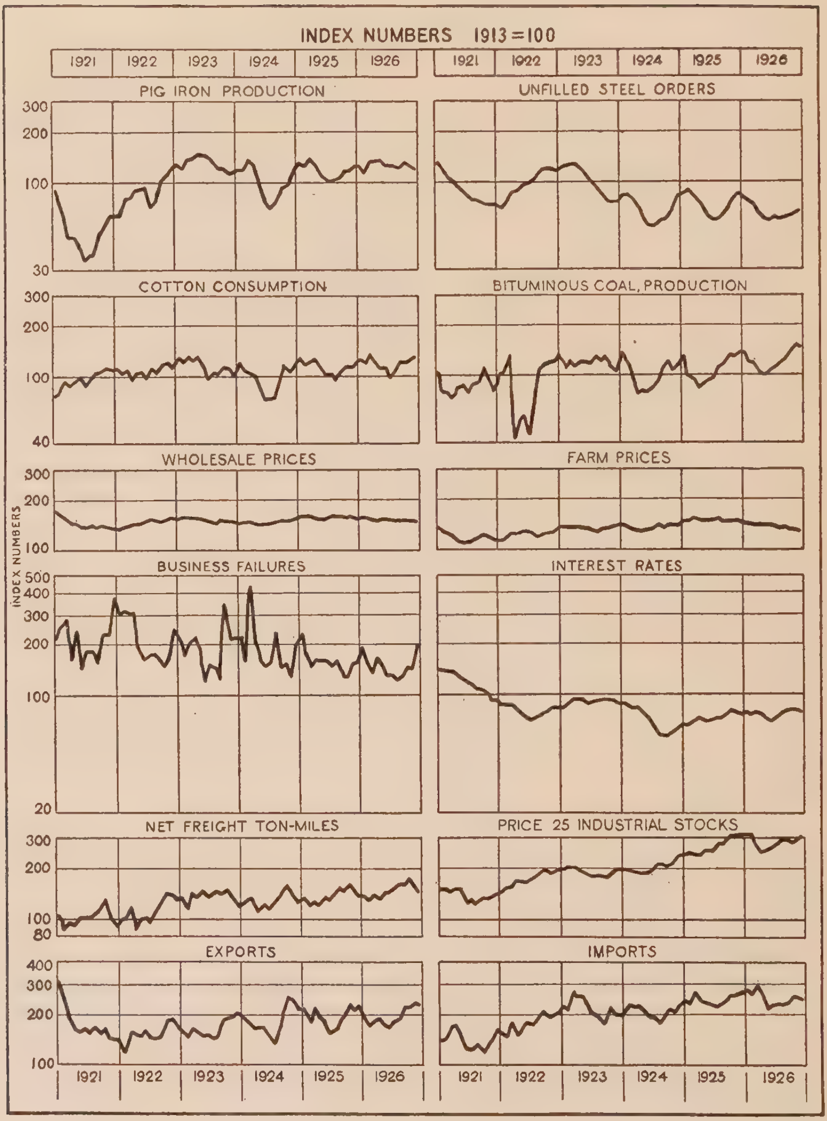
Volume I of the Commerce Yearbook incorporates statistical information originally collected by numerous Government bureaus, trade associations, and trade journals. Particularly large quantities of material were drawn from the Bureau of Foreign and Domestic Commerce, the Bureau of the Census, and the Bureau of Mines of this department, the Bureau of Agricultural Economics of the Department of Agriculture, the Federal Reserve Board, the Interstate Commerce Commission, the United States Shipping Board, the Bureau of Labor Statistics of the Department of Labor, and the American Iron and Steel Institute. These and other organizations have been helpful in many cases in furnishing data in advance of publication.

A large proportion of the work of summarizing and analyzing these statistics for the Yearbook has been performed in the Division of Statistical Research of which E. Dana Durand is chief, and Lawrence B. Mann of that division has had general charge of the editorial management. The preparation of tables and text, however, has involved the cooperation of nearly every division and foreign office of the Bureau of Foreign and Domestic Commerce, the Divisions of Simplified Practice and of Building and Housing of the Bureau of Standards, the Division of Statistics of the Bureau of Mines, and the Division of Survey of Current Business of the Bureau of the Census.

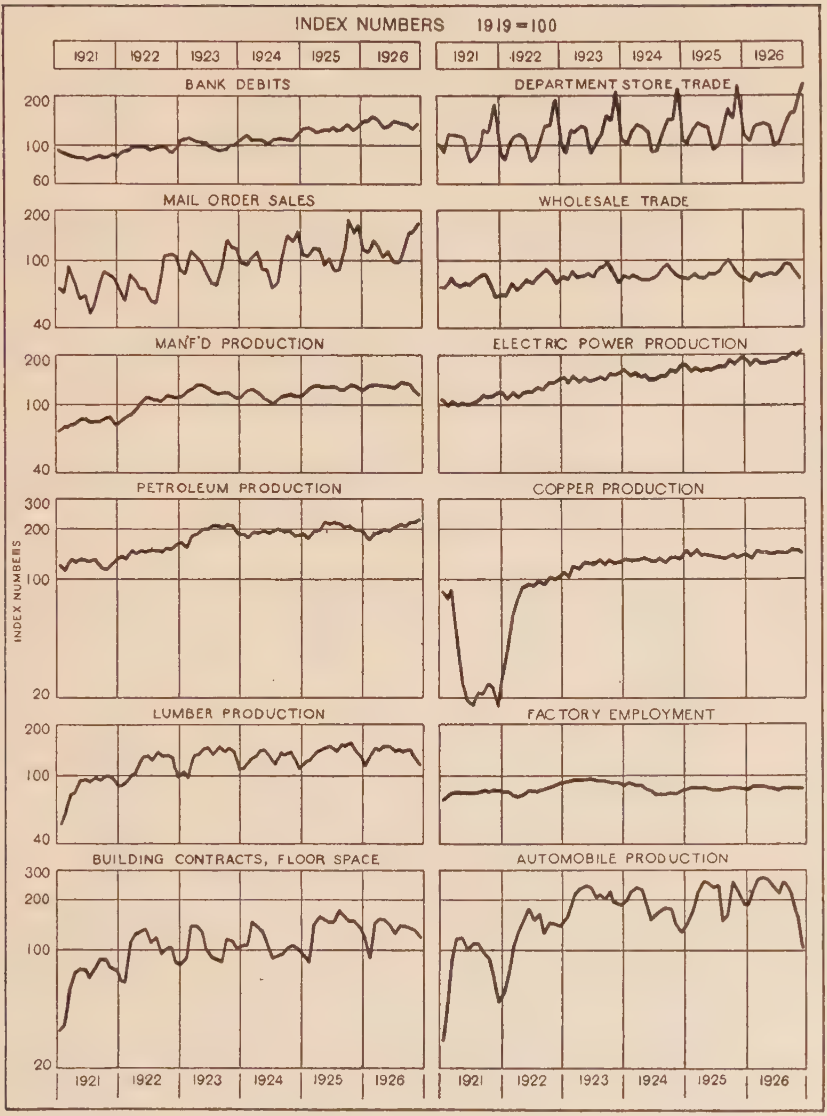
Julius Klein,
Director of Bureau.

Hon. Herbert Hoover,
Secretary of Commerce.

BUSINESS INDICATORS



BUSINESS INDICATORS



BUSINESS BAROMETERS

Item and unit of measure	Pre-war [1]	1921	1922	1923	1924	1925	1926
PRODUCTION							
Crops, value—millions of dollars	6, 341	7, 759	9, 430	10, 401	10, 770	10, 269	(2)
Animal products, gross value—do	3, 702	5, 589	5, 651	6, 271	5, 902	6, 694	(2)
Crops, quantity index (1910–1914=100)	100	100	110	110	111	112	114
Wheat—millions of bushels	690	815	868	797	864	676	832
Corn—do	2, 712	3, 069	2, 906	3, 054	2, 309	2, 917	2, 645
Cotton, production—thousands of bales	13, 033	7, 954	9, 762	10, 140	13, 628	16, 104	17, 688
Animal products marketed, index (1919=100)		98	106	117	117	113	114
Beef and veal inspected—millions of pounds	4, 108	4, 453	4, 969	5, 129	5, 328	5, 480	5, 711
Pork and lard, inspected—do	5, 023	6, 723	7, 419	9, 182	8, 820	7, 322	7, 273
Manufactures, quantity, index (1919=100)		81	101	119	113	126	128
Minerals, quantity, index (1919=100)		93	98	136	126	133	142
Pig iron—thousands of long tons	30, 966	16, 688	27, 220	40, 361	31, 406	36, 701	39, 373
Cotton, consumption—thousands of bales	5, 786	5, 409	6, 549	7, 312	6, 217	6, 852	7, 260
Lumber, estimated cut—millions of board feet	44, 000	30, 500	35, 000	39, 000	37, 000	39, 000	37, 500
Automobiles and trucks—number in thousands	[3] 485	1, 595	2, 547	3, 951	3, 506	4, 173	4, 260
Crude petroleum, production—thousands of barrels	248, 446	472, 183	557, 531	732, 407	713, 940	763, 743	773, 000
Coal, production—thousands of short tons	569, 960	506, 395	476, 951	657, 904	571, 613	581, 870	663, 290
Copper, smelter—short tons	612, 242	252, 793	475, 143	717, 500	817, 125	837, 435	871, 000
Electric power generated—millions of kilowatt-hours [4]	17, 572	40, 976	47, 659	55, 674	59, 014	65, 870	73, 791
Building contracts, floor space—thousands of sq. ft				678, 866	699, 320	887, 550	838, 430
Building contracts, value—millions of dollars				3, 981	4, 486	5, 822	6, 121
Portland cement, production—thousands of barrels [5]	92, 097	98, 842	114, 790	137, 460	149, 358	161, 659	164, 057
Steel ingots and castings—thousands of long tons	31, 301	19, 784	35, 603	44, 944	37, 932	45, 394	48, 294
SALES AND PRICES							
Wholesale trade, value of sales, index (1919=100)		73	74	83	82	84	84
Department stores, value of sales, index (1919=100)		111	112	124	125	131	136
Mail-order houses, value of sales, index (1919=100)		72	78	99	105	118	123
Wholesale prices, index (1913=100)	100	147	149	154	150	159	151
Retail food prices, index (1913=100)	100	153	142	146	146	157	161
Cost of living, index (1913=100)	100	177	167	171	171	176	175

Export price index (1913=100)	[6] 100	150	138	146	143	144	133
Import price index (1913=100)	[6] 100	117	113	132	129	142	139
RAILROADS							
Revenue freight ton-miles (Class I roads) millions	297, 723	306, 840	339, 285	412, 727	388, 415	413, 814	444, 039
Car loadings, all commodities, index (1919=100)	----------	94	103	119	116	122	127
Net earnings (Class I roads) millions of dollars	788	601	760	962	974	1, 121	1, 214
FOREIGN TRADE							
Exports, domestic and foreign, value millions of dollars	2, 166	4, 485	3, 832	4, 167	4, 591	4, 910	4, 809
Imports, value do	1, 689	2, 509	3, 113	3, 792	3, 610	4, 227	4, 431
Net imports of gold and silver do	[7] 37	679	246	296	222	[7] 169	75
Exports, quantity index (1913=100)	[6] 100	120	112	115	130	137	146
Imports, quantity index (1913=100)	[6] 100	120	154	161	156	166	178
BUSINESS FINANCE							
Debits to individual accounts:							
New York City millions of dollars	----------	207, 096	239, 855	238, 396	263, 531	313, 373	339, 055
All other cities do	----------	191, 941	199, 509	225, 330	228, 161	256, 423	268, 600
Price, 25 industrial stocks (dollars per share)	58. 19	79. 38	98. 58	107. 78	115. 08	152. 65	165. 70
Price, 25 railroad stocks (dollars per share)	82. 97	53. 21	62. 38	60. 15	67. 18	82. 48	93. 27
Price, 40 bonds, index (par=100)	76. 76	60. 15	74. 11	71. 72	74. 32	77. 04	80. 28
Commercial failures, liabilities millions of dollars	273	627	624	539	543	444	409

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[1] Pre-war figures represent the calendar or fiscal year 1913, except that agricultural statistics, meat production, and foreign-trade values represent the average for 5 years ending 1913 or 1914; electric power, 1912; bonds, 1915. Blanks in this column indicate lack of data.

[2] Not available.

[3] Figure represents production for both United States and Canada; not reported separately prior to 1919.

[4] Pre-war figures are on a slightly different basis from those for later years.

[5] Barrels of 376 pounds net.

[6] Calendar year 1913.

[7] Average net exports.

SUMMARY

Production and distribution in the United States both established new high records in 1926. Business has been expanding ever since the middle of 1922 and the great activity during the past year was distributed throughout almost all lines of production. Manufacturing output rose to a new high level; mineral production showed an even greater expansion, and railroad traffic was larger than in any previous year. Crop production also increased, but farm prices were lower than in 1925. Domestic trade continued to show steady growth and exports, after allowing for differences in prices, were larger than in any earlier year. The basic reason for this general expansion of business has been the increasing efficiency of both industry and trade.

Manufacturing and Mining.

The quantitative volume of manufacturing production in 1926, according to the index of the Department of Commerce, was 2 per cent larger than in 1925 and showed an increase of 58 per cent as compared with 1921. Mineral production was 7 per cent larger than in 1925 and exceeded the peak of 1923 by more than 4 per cent. Building construction which has been a very important factor in the recent business prosperity continued in record volume, and contract awards were 5 per cent greater in value than in 1925.

The activity in manufacturing and mining was about as evenly distributed in 1926 as in the preceding years. Of the 11 groups into which manufactured products are classified, all except nonferrous metals, leather products, and lumber had greater production than in 1925, and in six of these groups production surpassed that in any other year of our history, with the possible exception of war years for which complete statistics are not available. The increases in production for some of the major industries in 1926 as compared with 1925 are as shown in the following statement:

	Per cent		Per cent
Flour	2. 9	Zinc (primary, domestic ore)	10. 0
Pig iron	7. 3	Petroleum, crude	1. 2
Steel ingots	6. 4	Gasoline	15. 5
Bituminous coal	11. 2	Cement	1. 2
Anthracite	37. 5	Cotton (mill consumption)	6. 0
Coke	9. 3	Automobiles	3. 0
Copper (smelter, domestic ore)	4. 0	Rubber tires (casing)	1. 0
Lead (refined, domestic ore)	3. 8	Locomotives	37. 7

The consumption of raw silk by mills and the output of fuel and gas oil were practically the same as in 1925. The only important industries which had a smaller production in 1926 than in the preceding year were lumber and railroad freight cars. The cause of the great expansion in the anthracite output was the fact that production in 1925 was greatly curtailed by the strike which prevailed during the latter part of the year. Bituminous coal production was also substantially increased as a result of its use as a substitute for anthracite in the early months of the year, and as a result of the very large exports caused by the British coal strike.

The value of the building contract awards was 5.1 per cent greater than in 1925, the previous record year, but the floor space represented by contracts decreased 5.5 per cent in 1926. This seeming discrepancy was owing to the fact that a larger part of the awards in 1926 were for public utilities, public works, and other types of construction which are not included in the floor space statistics. Contracts for industrial building and public works and utilities showed particularly large increases in 1926, while contracts for residential and educational buildings declined.

The increase in manufacturing production during 1926 was accompanied by a slight further expansion in the volume of employment. The average number of persons on the pay roll was somewhat larger than in 1925 and the average earnings showed a greater increase, which apparently resulted from the elimination of part time work and an increase in the amount of overtime work. As a consequence of the steadily increasing efficiency of labor and industry, the increase in the number of wage earners was smaller as compared to 1925 than that in the quantity of production. Employment was slightly less steady than in 1925; indexes of the Bureau of Labor Statistics rose to a peak in March, decreased to a low point in July, and after an expansion in the fall months of 1926 closed the year about 2 per cent lower than a year earlier. Comparatively few changes were reported in wage rates of manufacturing industries. Average wage rates per hour in terms of money continued at least twice as high as before the war, the increase being much more marked than that of the cost of living. The working man is consequently enjoying the highest real wages in our history.

One of the most important facts in regard to American industry is its ever increasing efficiency. During the first quarter of the present century the number of wage earners in our factories increased about 88 per cent, while their quantitative output increased by 178 per cent. As a result, production per wage earner in 1925 was 48 per cent greater than in 1899. Even in the short period from 1919 to 1925 the output per wage earner in our factories increased about 40 per cent as a consequence of the greater efficiency of the wage earners themselves, improved management, more scientific methods and waste elimination, and greater use of machinery and other forms of capital as an aid to human effort. The advance in educational standards and in scientific research are the fundamental causes of this progress in industry.

Agriculture.

In the years since the war there has been a considerable increase in the total agricultural production of the United States and an even greater gain in the average output per worker. In 1925, the most recent year for which complete data are available, the quantitative output of agricultural products was 8 per cent larger than in 1919, while the output per agricultural worker showed an increase of 18 per cent.

In manufacturing industries large production usually results in prosperity for the producers. Output is increased by reason of greater demand and large production often accompanies relatively high prices. In agriculture, on the other hand, the volume of production is affected by conditions which are entirely outside of the control of producers, such as weather conditions. A large crop often brings in less total receipts to the farmers than a small one. For these reasons changes in production of agricultural products may have a very different significance from changes in output of mining and manufacturing industries.

During 1926 the acreage planted to crops was increased by about 1 per cent and was larger than in any year since 1919. The most conspicuous changes in acreage of individual crops since the close of the war were the decline in the area planted to wheat from 1919 to 1924 and the marked increase in the cotton acreage since 1921. The comparatively high prices received for the 1924 and 1925 crops of wheat, however, caused a considerable increase in the area devoted to wheat in 1926, while the area planted to cotton also continued to expand and was 56 per cent greater in 1926 than in 1921. The index of mass of crop production increased about 2 per cent. The outstanding developments in the agricultural situation in 1926 were the largely increased production of wheat and cotton, and the decline in prices of agricultural commodities. The increase of 8.2 per cent in the wheat acreage during the past year was accompanied by a marked gain in the yield per acre, and consequently the wheat crop was 23 per cent larger than in 1925. Production of all the other more important grain crops was considerably reduced during 1926, but prices of all grains except oats were lower at the end of the year than at the end of 1925.

The cotton crop of 1926 totaled 17,911,000 bales, which was 10 per cent greater than in 1925 and was also larger than in any other previous year. This record crop resulted from a 3.5 per cent increase in acreage and an increase of about 9 per cent in the yield per acre. Most of the recent increase in acreage has taken the form of a westward extension of the Cotton Belt. The New Orleans price, which had shown an intermittent decline during the years 1924 and 1925, dropped sharply in 1926 and in December averaged only 12 cents per pound.

The crop of leaf tobacco was 4 per cent smaller than in 1925, owing to a marked decrease in the output of cigar leaf and of dark tobacco. Exports increased slightly as a result of larger foreign purchases of the bright flue-cured and the dark-fired Kentucky types. Cigarette production was substantially increased and prices of high-grade types used for cigarettes were well maintained, whereas prices of practically all other types of leaf tobacco declined.

Meat production in 1926 was 1.6 per cent greater than in 1925, although smaller than in the years 1923 and 1924. Beef output of packing plants increased about 6 per cent during the past year and was also larger than in any other preceding year. Production of pork products, on the other hand, declined for the third consecutive year, and was 20 per cent smaller than in the peak year 1923.

The Department of Agriculture's weighted index of prices of farm products on the farm for the year 1926 averaged 7.5 per cent lower than for 1925. Monthly comparisons show marked changes in the relation between prices of farm products and other prices during the course of the last two years. The spread between the two indexes was comparatively small in the spring of 1925, and by September of that year farm and food prices had advanced until they were only one point below the average for other prices. During the latter part of 1925 and throughout most of 1926 prices of farm and food products declined, and there was an increase in the spread which reached the maximum since November, 1926.

There was a considerable divergence in the movement of different groups of farm products during the past year. For the calendar year 1926 as a whole farm prices of fruits and vegetables averaged 18 per cent higher than in 1925 and meat animals were 5 per cent higher, while decreases of 31 per cent and 17 per cent were shown for cotton and cottonseed and for grains, respectively. Excepting in the case of fruits and vegetables, a comparison of December farm prices with those a year earlier gives for the various groups much the same result as a comparison of the average prices for the two years.

The following table, which contains indexes compiled by the Department of Labor and the Department of Agriculture, summarizes conveniently the movement of the prices of the major agricultural products and of other products in central markets and of the general index of prices on the farm in comparison with pre-war levels taken as a base.

Comparative Indexes of Prices of Farm and Other Commodities

[1910-1914=100]

Commodity	Calendar year averages						December	
	1921	1922	1923	1924	1925	1926	1925	1926
CENTRAL MARKET PRICES								
All commodities	150	152	157	152	162	154	159	150
Domestic farm and food products	133	136	143	144	158	147	153	141
All other products	167	168	171	162	165	161	165	158
All grains [1]	134	124	124½	141	172	148	165	142
Winter wheat	146	125	118	138	180	157	182	141
Spring wheat	156	137	122	133	167	160	171	147
Corn	93	102	134	157	169	123	125	123
Oats	93	91	108	125	113	103	105	115
Cotton	117	164	227	222	182	136	157	99
Livestock and poultry [1]	108	116	110	112	140	135	130½	129
Cattle	108	116	125	125	134	125	128	127
Hogs	107	116	95	102	148	155	138	145
PRICES ON THE FARM								
General index	116	124	135	134	147	136	143	127

[1] Index based on 1913=100.

Price Movement.

Wholesale prices averaged lower in 1926 than in 1925, while retail food prices increased to a point higher than in any year since 1920. The general cost of living index, on the other hand, showed practically no change during 1926 as compared with the average for 1925.

Wholesale prices have on the whole been fairly steady during the past five years, but showed more variation during 1926 than in 1925. The range from lowest to highest month was 6 per cent in 1926 as compared with 3.7 per cent in the preceding year. Prices of all of the nine groups of commodities into which the general wholesale price index is divided, except fuel, decreased in 1926. Declines in the prices of farm products, of cloths and of clothing, and of miscellaneous commodities were especially marked, continuing throughout the year with very few breaks. Farm products averaged 10 per cent lower than in 1925, owing to drastic declines in cotton and grain prices, while clothing prices decreased 7 per cent, and the miscellaneous group, which is largely influenced by rubber, averaged 8 per cent lower than in the preceding year. Fuel prices increased about 3 per cent in consequence of the large foreign demand for coal, which resulted from the British coal strike. Retail food prices showed a considerable divergence from wholesale prices during 1926, making an advance of 2 per cent as compared with 1925. The general cost of living index, representing retail prices in 32 large cities, in December, 1926, was 76 per cent above the pre-war base, but was 1.3 per cent lower than at the end of 1925.

Transportation.

The railroad traffic of the United States in 1926 was substantially larger than in any earlier year. Both the number of tons of freight carried and the ton mileage increased by more than 7 per cent as compared with 1925. Operating revenues increased 4.2 per cent in 1926, while operating expenses were only 2.8 per cent larger than in 1925. Consequently, the net railway operating income reached a record figure of $1,214,000,000 in 1926, which was 8 per cent more than in 1925, and 25 per cent greater than in 1924. The ratio of operating expenses to revenues has steadily declined during the past six years from 94.3 per cent in 1920 to 73.1 per cent in 1926. The great increase of efficiency of our railroads during recent years is indicated by the following statistics: Car-miles per car-day in 1926 were 29 per cent greater than in 1922; net tons of revenue freight carried per train were 14 per cent higher; and gross ton-miles per train-hour increased 28 per cent. There has also been a considerable decrease in the pounds of coal consumed per thousand ton-miles and per passenger train-mile. Further evidence of improvement in the railroad situation is found in the almost entire freedom from congestion and delays in the movement of the greatest volume of traffic in railroad history.

The tonnage of the American merchant marine declined in 1926 compared with 1925 but continued to be more than twice as large as before the war. The loss was confined almost entirely to the tonnage engaged in foreign trade which was still 7 times as great as in 1914. Entrances at United States ports of vessels engaged in foreign trade totaled almost 77,000,000 net tons in 1926, which was 11 per cent more than in 1925, and was also larger than in any previous year on record. The weight of cargo exported was 18,880,000 tons greater than in 1925 as a result of the large exports of coal, while the weight of cargo imported increased only 515,000 tons. American vessels represented 35 per cent of the total entrances in 1926 as compared with 40 per cent in 1925.

Wholesale and Retail Trade.

Total value of wholesale trade, according to the index of the Federal Reserve Board, was about the same in 1926 as in 1925, while sales of all reporting groups of retail dealers showed substantial increases during the year. Of the six important lines of wholesale trade for which data are collected on a national basis, sales of meats, shoes, and drugs increased, while sales of drygoods, groceries, and hardware were somewhat smaller.

Sales of department stores and mail-order houses showed increases of 3.4 per cent and 4.2 per cent, respectively, in 1926, while sales of reporting chain stores showed a very much greater expansion. Analysis of department store sales by districts shows that trade increased during 1926 in practically all parts of the United States.

Mail-order business increased during the first three quarters of the year, but declined in the last quarter, as a result of the reduced buying power of agricultural sections. The total value of chain-store business was over 15 per cent larger than in 1925, but a considerable amount of this expansion may be ascribed to the increase in number of stores operated.

Foreign Trade.

The foreign trade of the United States continued to expand quantitatively during 1926. Imports were greater in value than in any other year except 1920, and after allowing for differences in price level were much the largest in our history. Exports declined about 2 per cent in value in consequence of the decrease in agricultural prices, but their quantitative volume was about 6 per cent larger than in 1925. The trade was featured by a continuance of the steady upward trend in exports of finished manufactures which has been under way for a number of decades.

The continued expansion of the import trade and the slight decline in the value of the export trade resulted in a further decrease in excess of exports over imports from $683,000,000 in 1925 to $378,000,000 in 1926. Notwithstanding this fact, there were increases in American capital investments abroad and tourist expenditures, as well as a net inward movement of gold.

The most striking changes in the export trade of 1926 were the sharp decline in the price of cotton, the large increases in exports of coal, petroleum products, and wheat, and the very general expansion of the export trade in manufactured articles. There was an increase of 7 per cent in the quantity of raw cotton exported, but the average export price declined nearly 7 cents a pound, causing the total value of cotton exports to decrease by $245,000,000 as compared with 1925. Had there been no change in the price of cotton, the total value of our export trade would have been materially greater in 1926 than the year before. Foreign shipments of coal and coke nearly doubled in quantity and value as the result of the English coal strike. Exports of finished manufactures during 1926 reached the enormous value of $1,956,000,000, which was 6 per cent greater than in 1925, and 51 per cent greater than in 1922. Even after allowing for differences in price levels, 1926 exports of manufactures were at least double those of the years immediately preceding the war. This gain is particularly gratifying since manufactured commodities are subject to the most severe competition in foreign countries and require the greatest efficiency in production and salesmanship.

Exports to all regions of the world except Europe and the southern part of North America increased substantially during 1926. Exports to Asia increased by about one-fifth and after allowing for differences in price levels were greater than in any earlier year. Sales to Canada were also in record volume, and exports to South America, Oceania, and Africa continued to show steady expansion. Exports to Europe on the other hand declined considerably as a result of the decrease in the value of various agricultural commodities. There was also some decrease in our exports to Latin countries of North America on account of the disturbed conditions in Mexico and the reduced price of sugar which lowered the buying power of Cuba.

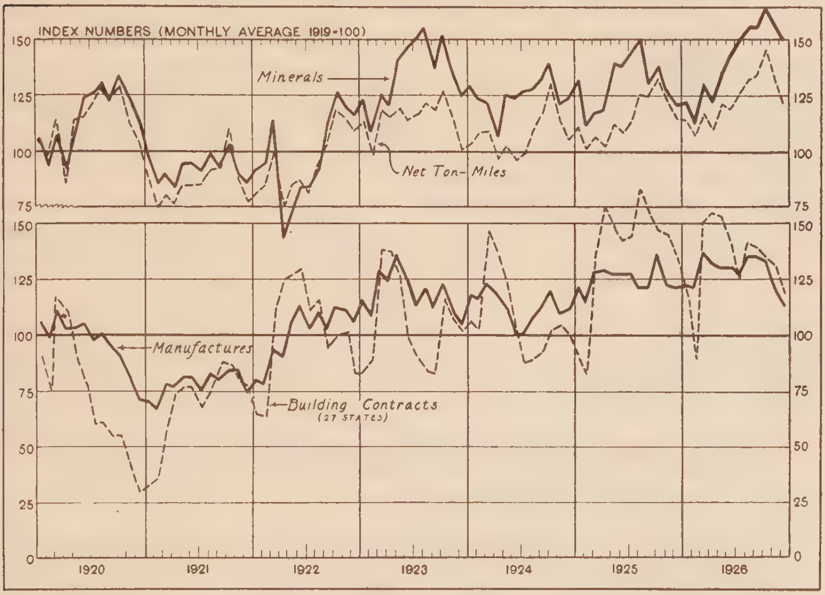
Imports into the United States from every region of the world except Oceania were greater in 1926 than the year before, the increase being particularly marked in the case of Asia which furnished nearly one-third of our total imports. Increases in imports were very generally distributed among the different classes of commodities. The great prosperity of the country and the general activity of business resulted in large purchases of tropical foodstuffs and of exotic raw materials. Imports of rubber and coffee were larger both in quantity and value than in any previous year, but there was a slight decline in the value of silk imports as a result of lower prices. Sugar imports were also somewhat lower in value than in 1925 but were quantitatively the largest ever reported. Imports of raw materials and semimanufactured products have constituted during the past quarter century an ever-increasing share of the materials used in our factories and our purchases of finished manufactures from foreign countries have also shown a steady though less marked increase.

COMMERCE YEAR BOOK, 1926

PRODUCTION, EMPLOYMENT, AND DOMESTIC TRADE

SUMMARY.—The production and trade of the United States were both in record volume during the year 1926. Manufacturing output, according to the Department of Commerce index, was about 2 per cent larger than in 1925 and 8 per cent larger than in 1923, which was the previous peak year. Mineral production increased 7 per cent and was higher than in any earlier year. Harvests reached a larger aggregate volume than in any year since 1920, while the marketings of animal products and crops were larger than in 1925, but slightly smaller than in 1924. The output of forest products was smaller than in either 1923 or 1925, but larger than in other recent years. The volume of manufacturing production increased in the early part of 1926, and reached a record high level in the late summer. Factory output declined somewhat in the fall, however, and at the end of the year was considerably smaller than a year earlier.

Chart I.—INDEXES OF MANUFACTURING PRODUCTION, MINERAL PRODUCTION, BUILDING CONTRACTS, AND RAILROAD TON MILEAGE



Indexes compiled by the Department of Labor show that the volume of employment and payrolls of manufacturing industries was slightly greater in 1926 than in the preceding year and that there was an increase in the average earnings of factory workers. Owing to the decline in industrial activity during the last quarter of the year, however, employment at the end of December was about 2 per cent smaller than a year earlier.

Sales of wholesale concerns reached about the same total value in 1926 as in 1925, while sales of department stores and mail order houses both showed increases of about 4 per cent. There was another large increase in the number of chain stores operated and total chain store business was about 16 per cent greater in value than in 1925. Reflecting the increase in production and distribution, car loadings increased about 4 per cent in 1926 and the total of railroad ton mileage was over 7 per cent greater than in 1925.

Commercial failures showed smaller liabilities in 1926 than in any year since 1920. Bank failures, on the other hand, were larger than in any earlier year, owing to the decrease in land values in the west and south.

Table 1.—Indexes of Production and Sales

[1919=100]

Branch	1920	1921	1922	1923	1924	1925	1926	Per cent change 1925 to 1926
DEPARTMENT OF COMMERCE PRODUCTION INDEXES								
Manufacturing (64 commodities)	98	81	101	119	113	126	128	+1.6
Raw materials, total	99	103	108	114	119	116	121	+4.3
Minerals (9 commodities)	116	93	98	136	126	133	142	+6.8
Animal products, marketings (9 commodities)	95	98	106	117	117	113	114	+.9
Crops, marketings (26 commodities)	94	112	113	102	118	111	117	+5.4
Forest products (13 commodities)	102	86	110	121	118	126	119	−5.6
FEDERAL RESERVE BOARD PRODUCTION INDEXES								
Agricultural products, marketings (40 commodities)	91	105	110	108	117	111	115	+3.6
Minerals (8 commodities)	117	92	95	132	122	127	137	+7.9
Manufacturing (48 commodities)	102	80	104	124	115	128	133	+3.9
Basic industries (22 commodities)	105	80	98	120	108	116	120	+3.4
OTHER INDEXES								
Railroad ton mileage	113	87	95	115	108	115	123	+7.0
Carloadings, all commodities	108	94	103	119	116	122	127	+4.1
Crops (production)	108	93	102	102	103	104	106	+1.9
Wholesale trade, value of sales	112	73	74	83	82	84	84	0
Department stores, value of sales	120	110	111	124	125	131	136	+3.8
Mail order houses, value of sales	103	72	79	99	105	118	123	+4.2

RECENT MOVEMENTS IN MANUFACTURING PRODUCTION

General Index of Manufacturing Output.

The output of American factories reached a new peak in 1926, exceeding the previous high mark made in 1925 by almost 2 per cent. (Table 1.) This statement is based on the Department of Commerce index of the volume (quantity, not value) of manufacturing output covering 64 commodities.[1] The manufacturing production index of the Federal Reserve Board shows a slightly greater advance over 1925 (almost 4 per cent), owing to the relatively heavier weighting in that index of such commodities as iron and steel, which are particularly sensitive to the fluctuations of demand and which made larger gains than most other groups.

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[1] The annual Department of Commerce index numbers for production in manufacturing industry, and of production and marketing of raw materials, shown in the accompanying tables, are computed by taking the relative production (in volume not value) of each individual commodity in each year as a percentage of its 1919 production (or of whatever common year may be used as the base period) and combining these percentages into an average by weighting each percentage by the importance of the particular commodity. The weights for manufactured articles are based upon the relative value added to materials in the process of manufacture as shown by the census of 1919, while for raw materials the weights are based upon the relative total value of the products as shown by that census. Monthly indexes are computed by the same method as the annual figures, using the monthly average production in 1919 (or other base year) as a base, not the figure for the corresponding month of the base year.

Table 2.—Indexes of Production of the Branches of Industry by Months

NOTE.—The "Manufacturing" index here given is adjusted according to the varying length of the month in working days. The "Basic Industries" index is adjusted for this and other seasonal factors. The other indexes are unadjusted.

[Monthly average 1919=100]

Month	Manufacturing (adjusted)						Minerals						Animal products (marketings)	
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926	1925	1926
January	71	81	111	113	117	122	98	92	124	130	145	122	113	107
February	73	85	118	122	124	130	86	95	110	124	114	113	102	95
March	76	90	124	124	129	132	90	115	125	122	118	130	112	113
April	78	96	130	118	130	132	84	62	121	108	119	122	115	110
May	82	102	130	108	128	130	95	73	142	126	140	135	114	118
June	82	113	126	104	129	130	96	85	147	125	139	144	120	121
July	79	108	119	101	128	127	92	85	151	128	145	150	111	115
August	80	107	116	109	122	135	99	92	156	129	151	156	107	111
September	81	103	118	114	122	135	94	114	139	134	133	156	105	111
October	85	113	118	116	132	134	104	127	153	141	140	165	115	117
November	85	112	113	114	128	122	90	121	136	122	129	158	119	125
December	75	110	109	112	122	114	86	117	125	124	123	150	123	126
	Forest products						Basic industries (adjusted)						Crops (marketings)	
January	61	90	107	111	116	108	84	86	121	121	127	120	119	109
February	67	86	96	114	111	114	84	91	120	121	124	120	81	79
March	80	99	120	117	125	126	81	95	124	117	120	123	75	70
April	84	102	120	129	130	124	79	86	124	114	119	122	49	57
May	93	122	135	132	133	131	77	92	127	104	111	117	55	57
June	92	128	133	120	134	128	77	94	122	94	110	118	55	63
July	87	116	124	111	126	119	74	95	121	95	113	118	69	103
August	93	125	136	124	132	117	79	95	120	94	109	116	106	114
September	89	118	124	119	134	120	79	100	114	103	111	121	191	172
October	93	118	131	123	136	120	83	107	118	109	116	122	196	232
November	96	117	119	114	120	113	86	116	116	108	115	124	174	199
December	91	98	104	108	118	106	83	116	110	117	121	121	164	149

Sources: Department of Commerce, Survey of Current Business; Federal Reserve Board for "Basic Industries."

The net change in manufacturing production from 1925 to 1926 was the smallest in any year since the war, although the change from 1919 to 1920 was only slightly larger. The close correspondence of the 1925 and 1926 outputs extends also to the monthly figures (Table 2), but in 1919 and 1920 the monthly figures fluctuated between wide extremes, only the yearly averages being close together. The 1926 output exceeded the low point of production in 1921 by 58 per cent.

To better compare the production of one month with another without the distortion due to a varying number of working days, the Department of Commerce index numbers representing monthly movements of total manufacturing output have been adjusted to allow for this factor, Sundays and the two nationally-observed holidays—Fourth of July and Christmas—being deducted in computing the number of working days. The effect of such adjustment is indicated in Table 3.

Table 3.—Index of Production of Manufacturing Industry, Unadjusted and Adjusted for Differences in Working Time During the Month

[Monthly average 1919=100]

Month	1925		1926		Month	1925		1926	
	Unadjusted	Adjusted	Unadjusted	Adjusted		Unadjusted	Adjusted	Unadjusted	Adjusted
January	122	117	122	122	July	128	128	127	127
February	115	124	121	130	August	122	122	135	135
March	129	129	138	132	September	122	122	135	135
April	130	130	132	132	October	137	132	134	134
May	128	128	130	130	November	123	128	122	122
June	129	129	130	130	December	122	122	114	114

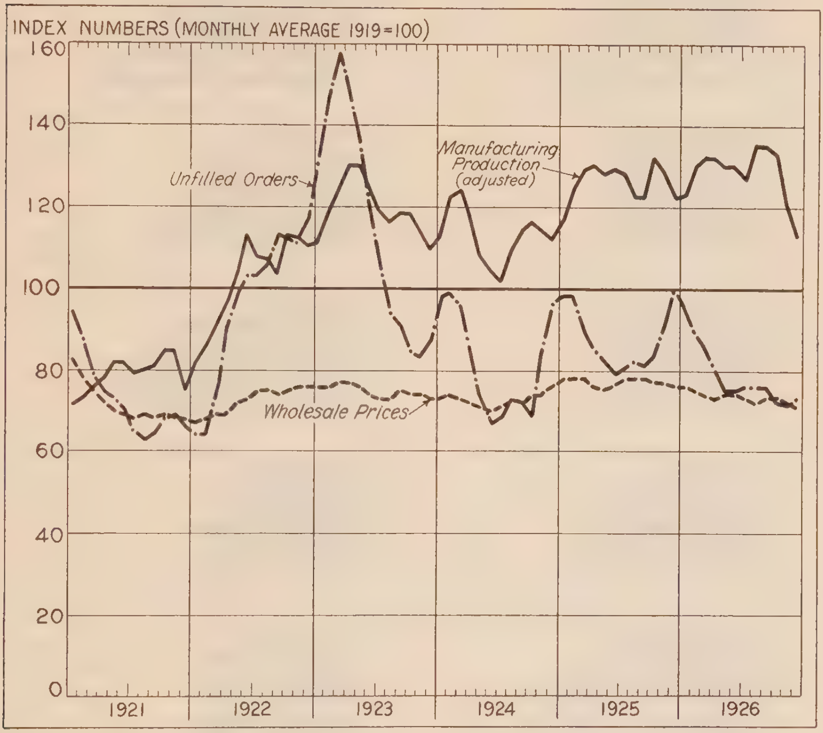
Source: Department of Commerce, Survey of Current Business.

Manufacturing output in 1926 was not quite as stable as in 1925 (Table 2), its extreme range of 18 per cent comparing with 13 per cent the previous year. However, if the first month of 1925 and the last month of 1926 are excluded, the extreme range for the 22-month period was only 11 per cent. In the nine months from February through October, 1926, the maximum fluctuation was only 6 per cent.

The year 1926 began with manufacturing output about the same as in the previous December but well above January, 1925, after allowing for the difference in number of working days. Output was materially increased in February, paralleling the increase a year earlier, and in March the index number rose to 132 (as against the 1919 average of 100), equaling the previous high record made in October, 1925. From March through July, the index remained almost stationary, and in August production increased to a new high mark, with the index number at 135. The high mark was particularly noticeable because made in a month when production is usually low. September equaled the high August record while October showed a slight decline. Production fell off considerably in November to about 5 per cent below the previous year and a further decline took place in December to the lowest point since December, 1924. Every month of 1926 showed a higher production than in the corresponding month of any year for which records are available, except July, November, and December, which were surpassed only in 1925.

The index of unfilled orders, covering chiefly iron and steel and building materials (Table 6), declined throughout almost the whole year. This index in the past few years has shown a seasonal movement culminating in December or January and making a low point during the summer. In the first half of 1926, it ran true to the seasonal trend, but it failed to show the usual seasonal rise in the last two months of the year. The indications which this index gave of small orders ahead, at a season when they are usually fairly large, were undoubtedly responsible in some measure for the sharp decline in production during the last two months of the year. The unfilled orders index, which was at the end of January 1 per cent below the corresponding 1925 figures, gradually fell further behind, showing its maximum decline of 23 per cent at the end of the year. November marked the low point for the year and also the lowest mark of the index since 1922, except for a few months in the summer of 1924. Unfilled orders at the end of December increased, but showed less than the usual seasonal expansion.

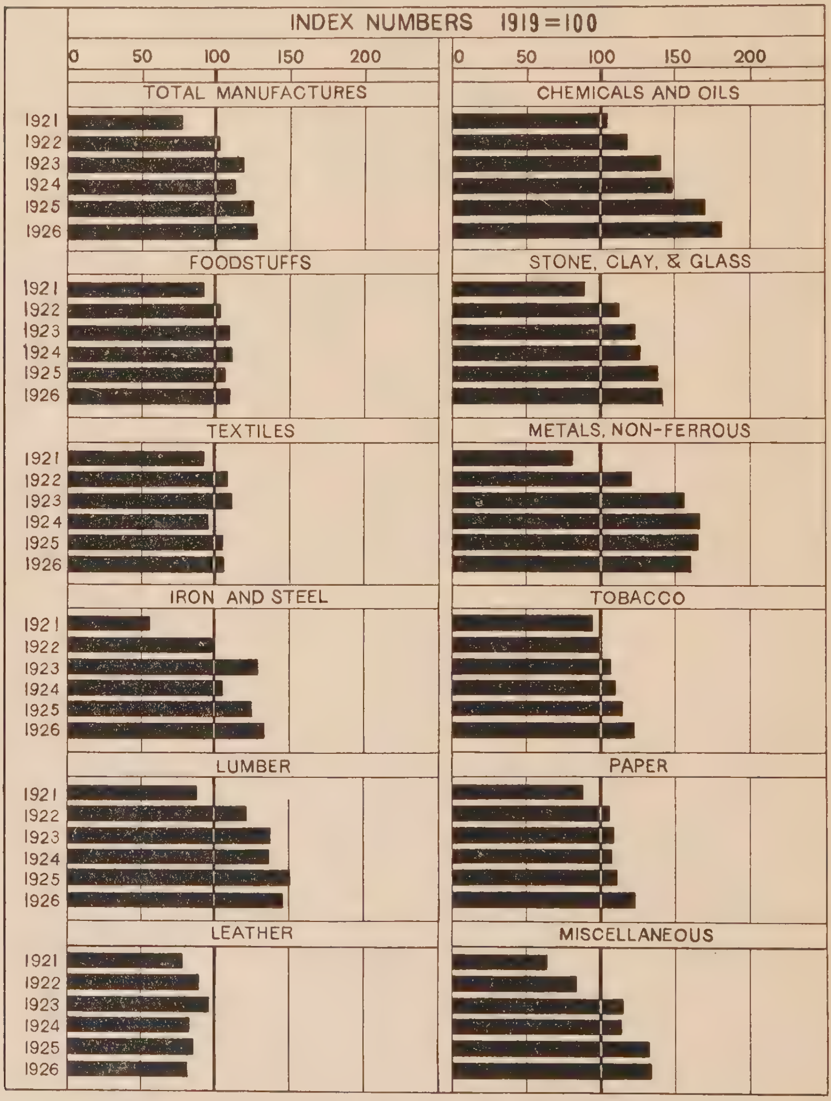
Chart II.—INDEXES OF MANUFACTURING PRODUCTION, UNFILLED ORDERS, AND PRICES



Manufactures by Groups.

While the total manufacturing production index increased almost 2 per cent over 1925 (Table 1), decreases occurred in 3 of the 11 groups into which manufactured products are classified. (Table 4.) These were lumber, leather, and nonferrous metals. The greatest relative increase over 1925 occurred in the paper group, with a gain of 10 per cent, while iron and steel, tobacco products, and chemicals and oils followed next, all having increases around 7 per cent. The declines in lumber and leather were about 3 per cent from 1925, while nonferrous metals were almost 11 per cent lower. The year 1926 showed new postwar records for iron and steel, paper, chemicals and oils, stone and clay products, tobacco products, and the miscellaneous group, the latter including automobiles and tires. Of the other groups, foodstuffs was lower than in 1924, textiles than in 1923, lumber than in 1925, nonferrous metals than in 1924 or 1925, and leather than in any other postwar year except 1920, 1921, and 1924.

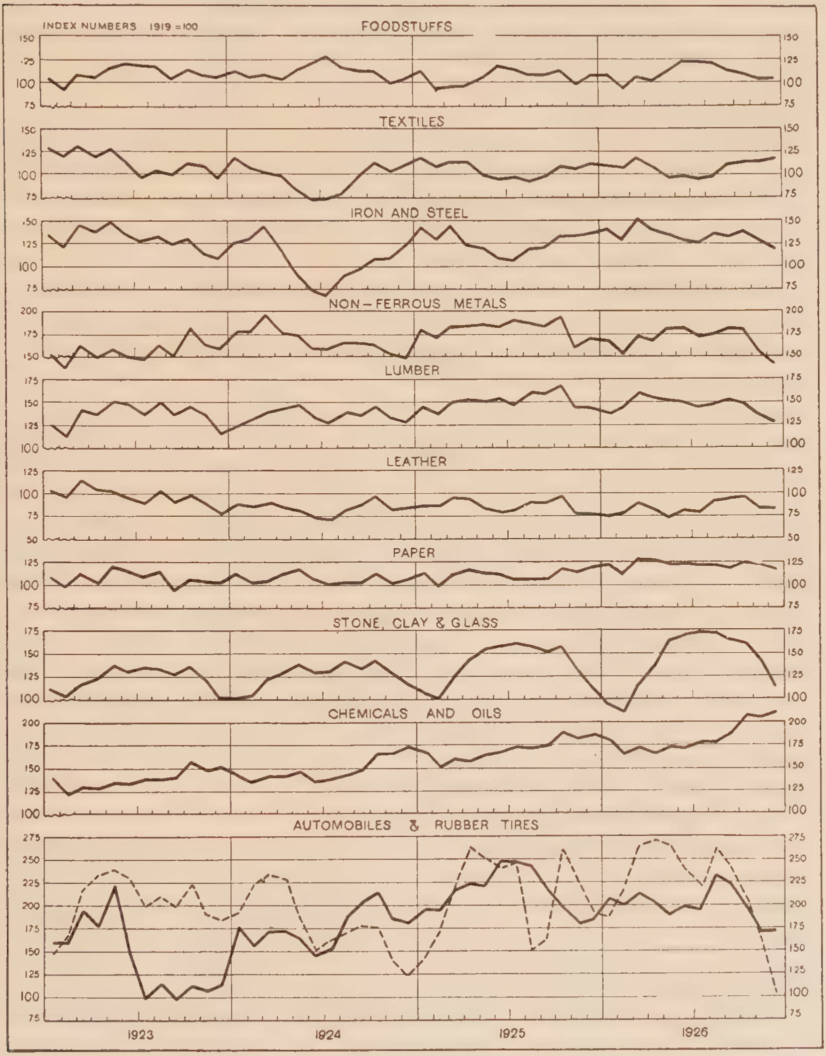
Chart III.—INDEXES OF MANUFACTURING PRODUCTION, BY GROUPS



As compared with 1919, the chemicals and oils group had the largest increase in 1926, amounting to 81 per cent. Nonferrous metals came next with a 61 per cent increase, while all the other groups except foodstuffs, textiles, and leather showed gains of from 22 to 46 per cent.

In calculating group indexes of manufacturing production no adjustment has been made for the varying number of working days, owing to differences in practice among the various industries as to observance of holidays and Sundays. (Table 4.) The peak month occurred in March for the textile, iron and steel, lumber, and paper groups, though the last made an equally high output in April. June was the high point for nonferrous metals, somewhat of a seasonal condition. July was the high point for foodstuffs and stone and clay products, also a seasonal condition, while August showed an unusual

Chart IV.—MONTHLY INDEXES OF MANUFACTURING PRODUCTION, BY GROUPS



peak in the miscellaneous group, owing to the high output of automobiles. The leather and tobacco groups made a high point in October, while chemicals and oils were highest in December. It is worthy of note that neither in August nor September, the months which showed the highest monthly output for all industries combined (Table 2), did any group except the miscellaneous industries make a high mark. This is indicative of the generally high level of production throughout all the groups at that time, though it was caused in part by the failure to correct the individual group indexes for number of working days.

Five groups had a higher monthly output in 1926 than in any previous year—chemicals and oils, at 210 relative to the 1919 average as 100, stone and clay products at 174, miscellaneous at 157, iron and steel at 150, tobacco products at 137, and paper at 127. All these groups except iron and steel and paper had made their previous monthly high marks in 1925. The lumber group had its highest monthly production in 1925, foodstuffs and nonferrous metals attained their high points in 1924, while leather and textiles reached their peaks in 1923.

Owing to the short working time in February the minimum production occurred in this month in 1926 for foodstuffs, paper, chemicals and oils, and stone and clay products. The low point for the leather group was in January, for textiles in July, and for lumber, nonferrous metals, iron and steel, and miscellaneous products in December. The minimum month's production in 1926 was higher than that of the lowest month of 1925 for all but five of the 11 groups. For two of these five, lumber and leather, a lower month's output occurred in 1924; for nonferrous metals we have to go back to 1923 for a lower monthly output, while the stone and clay products and miscellaneous groups had a lower output in their minimum month in 1926 than at any time since 1922.

Individual Manufactured Articles.

To compare production in greater detail, the individual commodities are shown either by themselves or combined with closely related commodities in Table 5. Thus 38 different items are presented. Of these 27 showed increased output over 1925, 2 showed no change, while the remaining 9 declined. The rate of change in the production of individual commodities from 1925 to 1926 was less than between 1924 and 1925, just as the total index showed less change. No commodity decreased more than 12 per cent between 1925 and 1926, while from 1924 to 1925 there were three decreases of over 20 per cent. The increases of 1926 over 1925 were also less marked, only two commodities, locomotives and condensed milk, increasing over 20 per cent, while in 1925 three commodities increased by 20 per cent or more over 1924.

Table 4.—Manufacturing Production—Indexes for Groups of Industries

NOTE.—Based on 1919 as 100. These indexes are not adjusted for length of month or seasonal variations.

Period	Foodstuffs	Textiles	Iron and steel	Lumber	Sole leather, boots and shoes	Paper and printing	Chemicals and oils	Stone and clay products	Metals, nonferrous	Tobacco	Miscellaneous
1920	92	93	119	101	82	110	112	116	109	98	89
1921	94	93	56	88	79	89	104	90	82	95	65
1922	102	108	98	121	90	106	118	114	121	99	85
1923	110	112	129	136	97	108	140	124	156	107	114
1924	111	95	105	135	83	107	148	127	167	110	113
1925	106	104	124	150	86	111	170	138	180	115	133
1926	109	106	133	146	83	122	181	142	161	123	134
Per cent change, 1926 from 1925	+2.8	+1.9	+7.3	−2.7	−3.5	+9.9	+6.5	+2.9	−10.6	+7.0	+0.8
1923											
January–March	103	126	133	126	105	108	132	112	151	102	110
April–June	115	119	140	145	102	113	134	132	153	107	136
July–September	114	99	127	141	94	107	140	132	154	112	104
October–December	111	105	116	132	88	105	152	120	167	109	104
1924											
January–March	109	108	132	131	87	107	140	109	183	103	123
April–June	113	83	94	140	79	112	142	133	169	110	113
July–September	120	80	83	133	80	101	143	135	162	117	110
October–December	104	107	111	134	87	107	168	129	155	110	105
1925											
January	113	117	141	144	85	113	169	106	179	111	104
February	94	108	127	137	85	99	151	100	171	100	112
March	96	112	143	150	94	111	160	125	182	109	139
April	98	112	123	152	93	116	156	141	184	107	154
May	105	99	118	150	82	113	164	154	185	112	152
June	119	94	107	153	79	112	167	157	183	124	153
July	115	95	105	148	82	106	172	160	189	127	156
August	111	91	116	160	90	106	171	157	186	120	118
September	109	97	118	158	89	106	173	151	183	123	118
October	113	108	130	166	96	118	188	158	193	132	148
November	98	105	131	144	77	114	181	133	159	116	129
December	107	110	134	142	76	119	187	112	167	104	119
1926											
January	108	108	140	137	75	122	180	95	167	110	121
February	94	106	128	145	77	113	164	85	152	105	132
March	106	117	150	159	88	127	173	115	176	127	154
April	101	106	140	154	82	127	166	136	168	116	153
May	111	96	135	151	73	123	172	164	180	118	147
June	124	97	128	149	80	124	170	170	181	135	141
July	126	95	125	144	78	123	177	174	173	128	132
August	120	97	135	147	90	122	177	173	175	132	157
September	113	110	132	151	94	119	187	165	180	133	147
October	108	112	138	148	96	125	207	162	178	137	129
November	101	113	127	137	84	123	205	144	154	128	105
December	102	116	119	127	82	118	210	115	142	104	86

Source: Department of Commerce, Survey of Current Business.

The greatest relative gains over 1925 were made by locomotives with 38 per cent and condensed milk with 35 per cent, while cleaned rice, which had the next highest gain, was only 18 per cent above 1925. Cottonseed oil, ice cream, cigarettes, and coke also increased 10 per cent or more, a total of seven commodities with gains of more than 10 per cent over 1925, as contrasted with 11 increases at this rate from 1924 to 1925—a noticeable increase in stability of industrial production. Twenty commodities increased less than 10 per cent between 1925 and 1926, as against 13 such increases from 1924 to 1925. Enamel ware showed the greatest decrease from 1925, amounting to 12 per cent, all other declines being less than 8 per cent. The 9 decreases from

1925 to 1926 were well scattered among the various groups, including, in addition to enamel ware, butter, cheese, wool, lumber, sole leather, boots and shoes, zinc, tires, and prepared roofing.

As compared with 1923, the year of highest output previous to 1925, the production of 12 commodities declined in 1926, while only 9 were lower than in 1925. The decreases were concentrated largely in the foodstuff, iron and steel, and leather groups.

New high annual records (at least since the war) were made in 1926, except for zinc, which reached its highest record in 1925, by the following 16 commodities, given in the order of their relative increase over 1919: Flooring, automobiles, petroleum products, cement, lead, cigarettes, ice cream, butter, steel ingots, condensed milk, sugar meltings, cottonseed oil, newsprint, copper, glucose, and cotton consumption. The first four of these commodities more than doubled their 1919 output in 1926, and in addition, enamel ware and rubber tires, both of which declined from 1925 to 1926, still had an output double that in 1919. It is interesting to note that all of the six commodities that had doubled their output between 1919 and 1926 depended upon either the automobile or the building industry.

Eleven commodities were produced in less quantity in 1926 than in 1919, one of these, sole leather, showing the lowest output in 1926 since the war, while shipbuilding, at 5 per cent of the 1919 average, was at the same level as in the two previous years. Production of oleomargarine, sole leather, and locomotives was less than two-thirds of the 1919 output.

Unfilled Orders for Manufactured Goods.

With the increase in the so-called "hand-to-mouth" buying in the past few years, the index of unfilled orders has not been as sensitive an indicator of production as earlier. For this index, covering generally the iron and steel and building material industries, the year 1920 is used as a base, although it was the peak year for orders owing to the duplicate bookings made to different manufacturers by consumers in the scramble to secure goods.

The decline in the unfilled order index (Table 6) throughout the year 1926 extended to all the individual commodities represented therein. In some cases, such as locomotives and oak flooring, unfilled orders at the end of 1926 were only slightly more than half as large as a year earlier, and for the other groups the declines averaged from 15 to 20 per cent. The average decline for the year 1926 as a whole was only about 11 per cent, which was considerably less than that indicated by the end of the year figures. Only one commodity, oak flooring, declined more than the average, while locomotive unfilled orders averaged higher than in 1925, showing a gain of almost 12 per cent.

Table 5.—Indexes of Production of Individual Manufactured Commodities

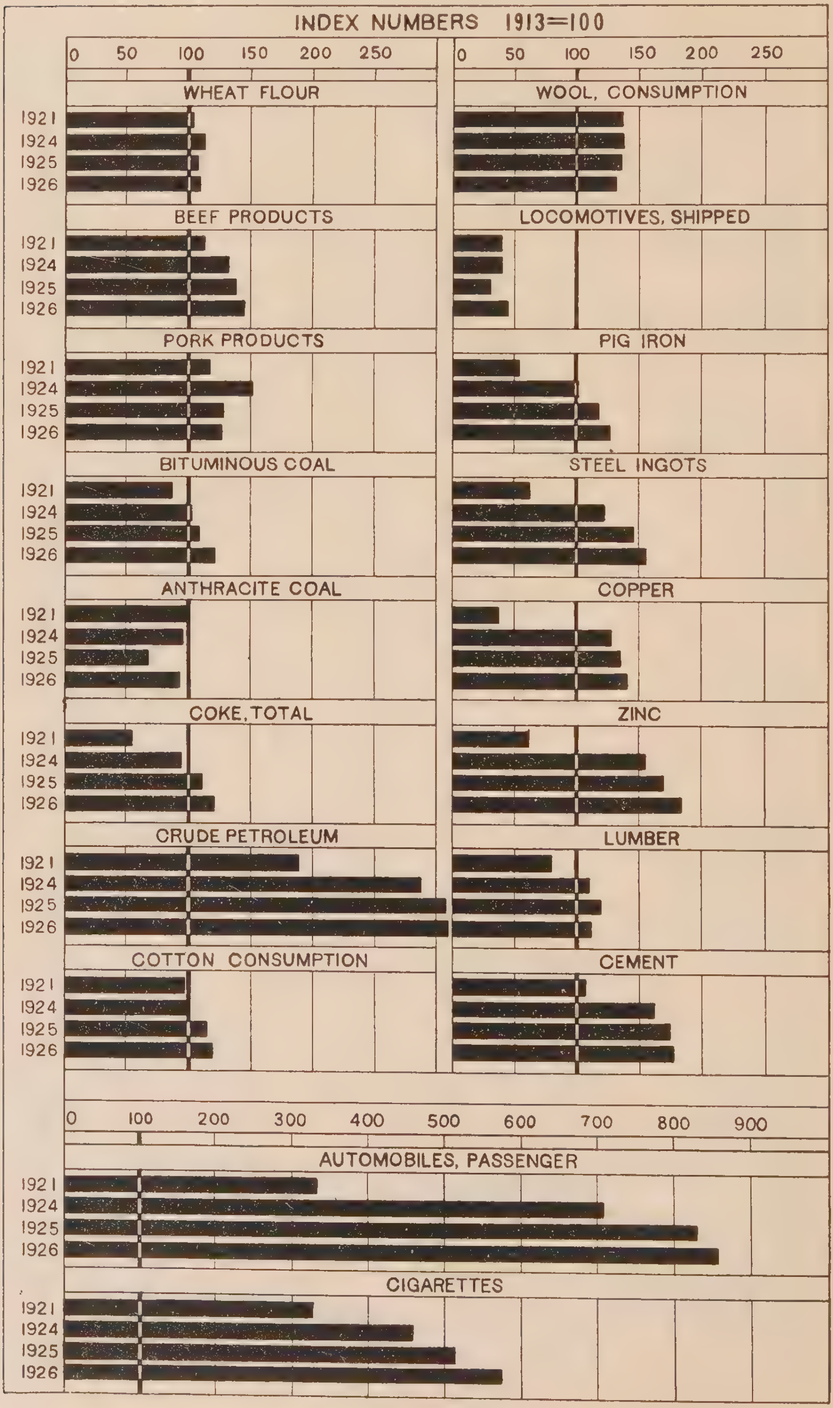
[Monthly average 1919=100]

Commodity	Year							December		Maximum month, 1926	Minimum month, 1926
	1920	1921	1922	1923	1924	1925	1926	1925	1926		
Total, 64 commodities	**98**	**81**	**101**	**119**	**113**	**126**	**128**	**122**	**114**	**138**	**114**
FOODSTUFFS											
Meat	92	91	100	115	111	103	105	122	117	121	97
Wheat flour	83	91	94	95	100	94	96	96	95	118	78
Sugar meltings	104	92	130	107	118	129	133	107	84	153	84
Ice cream [1]	111	111	117	138	133	144	165	70	99	309	72
Butter [1]	100	121	130	144	151	161	164	129	124	238	121
Cheese [1]	91	93	100	109	112	123	114	79	94	167	75
Condensed milk [1]	76	71	68	103	106	83	112	65	173	135	66
Glucose and starch	93	90	103	102	116	108	117	120	94	137	94
Oleomargarine	100	58	50	61	62	65	66	79	81	81	51
Rice	91	157	131	112	113	88	104	123	146	176	46
TEXTILES											
Cotton (consumption)	99	91	103	110	93	109	113	117	123	129	93
Wool (consumption)	83	96	118	116	97	95	92	97	104	107	79
IRON AND STEEL											
Pig iron	119	54	88	131	102	119	128	128	121	137	115
Steel ingots	121	57	99	128	109	131	140	142	124	159	124
Locomotives	89	50	48	119	55	39	54	42	52	61	48
LUMBER											
Lumber	100	85	110	121	117	127	119	116	102	132	102
Flooring	105	103	171	208	216	258	270	259	245	294	245
LEATHER											
Sole leather	82	79	78	83	65	66	61	57	67	67	53
Boots and shoes	------	------	98	106	94	99	98	88	92	115	84
PAPER											
Newsprint	110	89	106	108	107	111	122	119	118	127	113
CHEMICALS, ETC.											
Coke	117	58	80	129	99	115	128	138	122	141	120
Petroleum products	116	119	137	156	177	203	214	209	235	235	190
Cottonseed oil	80	89	65	68	81	106	123	188	231	249	12
Turpentine and rosin	132	131	155	170	169	161	166	138	211	270	31
Wood distillation	86	43	75	94	85	85	89	97	97	101	73
STONE AND CLAY											
Brick	110	66	94	91	85	93	97	78	82	115	64
Portland cement	124	122	142	170	185	201	204	160	160	256	115
NONFERROUS METALS											
Copper	99	48	64	94	103	108	118	104	113	132	102
Zinc	105	47	81	116	117	129	120	141	129	129	109
Enamel ware	119	122	188	228	243	263	231	222	157	271	157
Lead	112	93	116	134	156	169	177	184	195	195	166
TOBACCO											
Manufactured, and snuff	94	91	99	97	97	97	97	81	80	106	80
Cigars	112	96	98	97	94	92	93	80	79	113	74
Cigarettes	84	96	101	124	134	151	168	141	144	192	141
MISCELLANEOUS											
Shipbuilding	67	33	8	7	5	5	5	4	10	10	2
Automobiles	112	85	131	203	181	211	221	192	103	271	103
Rubber tires	------	83	131	142	176	214	200	185	172	231	171
Prepared roofing	114	105	122	122	131	134	128	115	102	168	82

[1] Partly estimated in 1926.

Source: Department of Commerce, Survey of Current Business.

Chart V.—INDEXES OF PRODUCTION OF PRINCIPAL INDIVIDUAL MANUFACTURED ARTICLES



Unfilled orders in the latter part of 1926 were lower than at any time since the autumn of 1924 and for the entire year averaged less than for any year since 1921. As compared with other recent years, orders for sheet steel were relatively high in 1926, while total unfilled orders of the United States Steel Corporation and orders for maple flooring were at a very low point. Orders for oak flooring averaged lower than in any of the three preceding years, but were still substantially higher than in 1920 or 1921.

Table 6.—Indexes of Unfilled Orders for Certain Commodities

[Monthly average 1920=100] [1]

Period	General average weighted	Locomotives	Steel, sheet (independent concerns)	Steel, total United States Steel Corporation	Maple flooring	Oak flooring
1921 (monthly average)	47	26	34	53	38	84
1922 (monthly average)	62	67	50	56	76	256
1923 (monthly average)	74	120	65	60	100	343
1924 (monthly average)	52	34	53	40	46	361
1925 (monthly average)	56	34	77	43	38	403
1926 (monthly average)	50	38	77	39	35	324
1924						
March	61	40	61	48	66	397
June	43	40	36	33	36	280
September	46	29	40	35	35	352
December	62	33	96	48	48	413
1925						
January	62	31	88	50	48	417
February	63	30	82	53	47	408
March	58	34	80	49	42	364
April	54	36	67	44	35	367
May	53	35	58	40	33	394
June	51	30	64	37	36	388
July	51	29	69	35	41	417
August	52	23	67	35	42	464
September	52	27	72	37	37	409
October	53	38	86	41	31	347
November	58	41	92	46	29	392
December	64	51	98	50	34	474
1926						
January	61	44	88	49	39	420
February	57	37	76	46	40	385
March	55	51	78	44	44	351
April	51	46	69	39	37	329
May	48	47	61	36	33	322
June	48	43	61	35	35	324
July	48	36	75	36	33	304
August	49	34	76	35	37	336
September	49	32	106	36	36	304
October	46	25	84	37	32	276
November	45	34	73	38	28	253
December	47	26	77	40	29	279

[1] Merchant iron is also included in the general average index, but data are not available for publication separately.

Source: Department of Commerce, Survey of Current Business.

PROGRESS OF PRODUCTION AND ADVANCE IN EFFICIENCY

The marked increase in production and general volume of business as compared with 1919, disclosed in the statistics already presented, does not reflect an upward swing of the business cycle, since 1919 was itself a very active year. To some extent it does indicate the resumption of normal productive efficiency after the dislocation caused by the war. For the most part, however, it marks a definite attainment of a higher level of production and consequently of national well being. This is clearly shown from data as to the longer swing of production in the United States. Over a long period of time there has been a steady advance in the efficiency of American industry. The pace of this progress has accelerated during recent years as the result of the cumulation of forces previously at work.

Increase in Manufacturing Production Since 1870.

Statistics of value of output are unsatisfactory as a measure of changes in production over a long period because of the marked variations in the buying power of money. A rough approximation of the true movement, however, may be gained by comparing value statistics with the general wholesale price index.

The present population of the United States is somewhat more than three times greater than in 1870. The production of agricultural products has fully kept pace with this increase in population, as is evident from the fact that exports have increased at approximately the same rate as the number of inhabitants. This has been done, however, with relatively small increase in the number of persons engaged in agriculture. Approximately 7,000,000 persons were so employed in 1870 as compared with 10,500,000 at the present time.

The increasing efficiency in production of the farms has made it possible to set free very large numbers to engage in the more elaborative industries and in commerce. Thus even though the census of manufactures formerly included construction and hand trades, which are now excluded, the number of workers in factories at present is more than four times greater than in 1870. The production per worker in factories has meantime increased greatly. The added use of machinery is reflected in the fact that the horsepower of prime movers employed in factories is more than 15 times greater than in 1870. The value added by manufacture to materials is nearly 20 times greater than at that time, while the index of wholesale prices is less than 20 per cent higher, indicating an increase of probably fifteenfold or more in the quantitative output.

Table 7.—Growth of Manufacturing Industry, 1869–1925

NOTE.—Figures for the censuses prior to 1899 include hand and neighborhood industries excluded thereafter. Other changes in the basis for inclusion in the census affect slightly the comparability of the returns for 1919 and 1925 with those for previous years.

Year	Number of wage-earners	Horsepower of prime-movers	Value added to materials	Wholesale price index
1869	2,054,000	2,346,000	$1,395,000,000	135
1879	2,733,000	3,411,000	1,973,000,000	85
1889	4,252,000	5,939,000	4,210,000,000	83
1899	4,713,000	10,098,000	4,831,000,000	75
1909	6,615,000	18,675,000	8,529,000,000	97
1919	9,000,000	29,422,000	24,809,000,000	206
1925	8,384,000	35,735,000	26,775,000,000	159

Sources: Bureau of the Census, Department of Commerce, and Bureau of Labor Statistics, Department of Labor.

There has likewise been an enormous increase in the output of mines. The value of mineral products, according to the reports of the Geological Survey, was more than 15 times greater in 1925 than in 1880, the general wholesale price index having meantime increased about 60 per cent.[2]

Equally marked has been the increase in the volume of railway traffic which reflects both the changes in volume of production of commodities and in the distances hauled. The number of ton-miles of revenue freight carried during 1925 was about 13 times greater than in 1880 and the number of passenger miles about 6½ times greater.

Even were there no statistics of production the census returns as to the occupations of the people would furnish clear indication of increase in output and of efficiency in industry.[3]

Table 8.—Shift in Occupations, 1880–1920 (Adjusted Figures)

Occupation	Number			Per cent		
	1880	1900	1920	1880	1900	1920
Total	**17, 392, 000**	**29, 073, 000**	**41, 854, 000**	**100. 0**	**100. 0**	**100. 0**
Agriculture, lumbering, and fishing	8, 596, 000	10, 889, 000	11, 393, 000	49. 4	37. 5	27. 2
Manufacturing, mechanical pursuits, and mining	4, 449, 000	7, 451, 000	13, 809, 000	25. 6	29. 1	33. 0
Trade, transportation, and clerical work	2, 122, 000	5, 444, 000	10, 383, 000	12. 2	18. 7	24. 8
Professional service	603, 000	1, 213, 000	2, 112, 000	3. 5	4. 2	5. 0
Domestic and personal service	1, 622, 000	3, 076, 000	4, 157, 000	9. 3	10. 6	9. 9

Source: Bureau of the Census; adjustments by Division of Statistical Research, Bureau of Foreign and Domestic Commerce.

In 1880 nearly half of the entire working population was engaged in agriculture, forestry, and fisheries (the two latter groups accounting for only a small fraction). In 1920 the proportion had fallen to 27 per cent and the still further decrease since that time has probably brought it down to one-fourth. Every other major group of occupations has gained relatively as compared with agriculture. The proportion for manufacturing, mechanical pursuits, and mining rose from 25½ per cent in 1880 to 33 per cent in 1920. A still greater proportionate gain appears in the group which includes trade, transportation, and clerical services. The increasing efficiency in the production of commodities on the farms and in mines and factories has made it possible to set free larger numbers to engage in commerce, while in turn the greater multiplicity and elaboration of commodities has called for more complex methods of marketing.

Advancing efficiency of production has also made possible an increase in the relative number engaged in professional pursuits and in personal services. The gain in the latter field has not been in household servants; the proportion of these is decidedly smaller than half a century ago. It has been rather in persons working in hotels, restaurants, laundries, and other activities outside the home.

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[2] Geological Survey reports include some partly manufactured mineral products and are not directly comparable with the census returns of the mining industry proper, but down to 1919 (the date of the last mining census) the rate of increase shown by the two sets of figures was practically identical.

[3] Owing to changes in the grouping of occupations according to great classes, in the definition of certain individual occupations, and in instructions to enumerators (especially as to reporting women and children) the census statistics as originally published require regrouping and also certain adjustments which must be made by estimate. The margin of possible error involved in these estimates is not sufficient to obscure the general nature of the shift which has taken place.

Quantitative Increase in Production, 1899 to 1925.

Calculations as to the quantitative increase in the products of agriculture, mining, and manufactures and in the volume of railway traffic from 1899 to 1925 are summarized in Table 9. There are no long-time data as to construction, a field in which the increase during recent years has been exceptionally rapid. Still less possible is it to measure the increase in the services (other than rail transport) which do not incorporate themselves in tangible goods.

The data in the table are in part estimates and there may be a margin of error of several per cent in some of the items. The broad movement is, however, substantially as shown. The percentage of increase given for the output of factories is almost certainly an understatement. The quantitative figures from which the general average is computed are necessarily confined largely to commodities of simple type. Highly elaborate commodities in many instances can not be reported at all in terms of quantity and in many other cases the quantities are not comparable from census to census on account of differences of quality, style, shape, and size. In a progressing country increase in output is naturally most marked in the unstandardized articles. Moreover the quantitative increase in articles not themselves comparable quantitatively can not be satisfactorily estimated by adjusting the statistics of their value by price indexes. Price statistics of articles themselves are either not available or not comparable. It is not to be expected that the movement of their prices should be parallel with that of standardized commodities, since a large proportion of them are newly developed articles in the production of which improvements take place with exceptional rapidity, while the exceptional increase in output likewise tends to reduce cost of production.

Table 9.—General Indexes of Production and Workers, 1925 in Relation to 1899

Industry	Workers (thousands)		Index 1925 (1899=100)			Value of output (millions of dollars)	
	1899	1925	Workers	Quantitative output	Output per worker	1899	1925
Agriculture	10, 500	10, 500	100	145	145	3, 500	12, 400
Mining	600	1, 065	177	480	271	600	4, 300
Manufactures	5, 200	9, 772	188	278	148	4, 830	26, 775
Transportation (railway)	929	1, 846	198	293	148	1, 300	5, 620
Total or average	17, 229	23, 183	135	[1] 247	[2] 183	10, 230	49, 090

[1] Computed by giving the above percentages weights according to the relative importance of the several branches in 1899, as determined by value of product.

[2] Obtained by dividing the average index of increase in output (247) by the actual ratio of total workers in 1925 to the total in 1899 (135). The figure exceeds the weighted average of the indexes of output per worker in the several branches, because the increase in number of workers between 1899 and 1925 was confined to branches in which the average value of output per worker is greater than it is in agriculture.

The combined output of agricultural, mineral, and manufactured commodities, and of railroad transportation increased nearly two and one-half times between 1899 and 1925. Population meantime had increased 54 per cent, so that, per capita of the total population, the output of these branches of industry increased at least 60 per cent.

The increase in production of goods and services not covered by Table 9 has been greater than in these fields themselves. This is indicated by the fact that the number of workers in these four branches increased between 1899 and 1925 by only about 35 per cent as compared with 54 per cent for the total population, reflecting the shift from agriculture, and more recently from manufactures, into commerce, professional and personal service, and construction. It is reasonable to assume that the increase in total output of goods and services of all kinds, per person in the total population, has been as great as the increase in output per worker in the four great branches of agriculture, mining, manufactures, and railroad transportation. This increase has been over 80 per cent (calculated by dividing 247, the relative number for output for 1925 as compared with 1899, by 135, the relative number for workers).[4]

The increase in production per hour of gainful labor has been even greater than the increase per worker. The hours of labor in every industry have been cut down during the past quarter century. Census statistics regarding hours of labor go back only to 1909. They show a reduction of 11 per cent between that year and 1923 (data for 1925 not yet being available). As compared with 1899 the reduction in hours for factory workers has probably been at least 15 per cent. In the other major branches of industry working hours have been cut down similarly.

Changes in Production From Census to Census.

More detailed analysis of the available data indicates that there was a decided increase in production per person employed in the major branches of industry from the beginning of the century down to the outbreak of the World War, and a still more rapid increase after the close of the war. The movement is to some extent obscured by the fact that the year 1914, in which the quinquennial census of manufactures was taken, was one of considerable depression. Consequently little if any increase appeared in the output per worker in manufacturing industries between 1909 and 1914. Had the census covered the more normal year 1913 the upward trend disclosed by the two preceding censuses would have been found continuing. From 1899 to 1909 the number of wage earners in factories increased about 40 per cent, while the physical volume of production increased at least 60 per cent.

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[4] The calculations above summarized deal only with actual quantities, the combined percentages of increase being made up by weighting the percentages of change in the individual commodities according to their relative importance in terms of value. Roughly similar conclusions may be reached by adjusting the reported value of products according to the general wholesale price index.

The exceptional demand for certain types of commodities during the war resulted in very great activity of business. Many women were called from the homes, and many men from the farms, to the factories, while the farmers in turn by greater effort were able to increase their production. The process of expanding output, however, carried with it great dislocation of industry—the employment of many workers on unfamiliar tasks, the turning of much machinery to purposes for which it was but little adapted, and the hasty erection of plants. Consequently efficiency of industry fell below normal. Production per worker in factories was no greater in 1919 than in the depressed year 1914. A very similar experience befell the railways.

The Increase in Production Since 1919.

The increase in production of the major industries since 1919 has been rapid and at the same time there has been a diminution in the number of workers in these industries, so that the increase in output per worker has been decidedly greater. The changes are shown in Table 10. In this table also some of the figures are approximate only, but it is probable that they understate rather than overstate the increase in production.

Table 10.—General Indexes of Production and Workers, 1925 in Relation to 1919

Industry	Workers (thousands)[1]		Index 1925 (1919=100)			Value of output (millions of dollars)	
	1919	1925	Workers	Quantitative output	Output per worker	1919	1925
Agriculture	11,300	10,500	93	108	118	15,700	12,400
Mining	1,065	1,065	100	133	133	3,175	4,300
Manufactures	10,689	9,772	91½	128½	140	24,750	26,775
Transportation (railway)[2]	1,915	1,744	91	104½	115	4,721	5,602
Total or average	24,969	23,081	93	120	129	48,346	49,077

[1] Estimates.
[2] Data based on Class I roads.

Between 1919 and 1925 the output of the agricultural industry increased approximately 8 per cent, of mining 33 per cent, of manufactures 28½ per cent, and of transportation 4½ per cent. In each of these branches, except perhaps mining, as to which there are no complete statistics, there were fewer persons employed in 1925 than in 1919, and the increase in output per worker ranges from about 18 per cent for agriculture to 40 per cent for manufactures.

For the four branches combined the increase in output (ascertained by weighting the percentages of increase in the individual branches by the relative value of their products in 1919) was approximately one-fifth, while there was a decrease of about 7 per cent in the number of workers. The output per worker, therefore, was nearly 30 per cent greater in 1925 than in 1919.

As already stated, the production of 1919 was relatively inefficient so that the increase in output per worker in recent years is greater than would have been the case had normal conditions prevailed throughout the world. That this is far from being the only explanation of the increase, however, is shown apart from other evidences, by comparison of the normal and prosperous year 1923 with the normal and prosperous year 1925. The number of wage earners in American factories declined by 4.4 per cent but the quantity of output increased by 6 or 7 per cent, the output per worker being at least 11 per cent greater in 1925 than in 1923. Similarly the railways (Class I carriers) carried practically the same volume of traffic in 1925 as in 1923 (slightly greater freight and somewhat less passenger traffic) but were able to do so with 7 per cent fewer employees.

The decrease in the number of workers in agriculture, manufactures, and railroad transportation during recent years must not be supposed to have resulted in unemployment. There are no available general statistics of unemployment but it is certain that neither in 1923 nor in 1925 were there any considerable numbers unable to find work. Indeed had unemployment been prevalent in recent years the great increase in output, especially of manufactured goods, would have been impossible, for lack of markets. Those who have left the farms, the factories, and the railways have entered other fields. Some have gone into construction work which has been extremely active. A large number have engaged in the new forms of transportation activity opened up by automotive vehicles. Still more have entered mercantile pursuits, notably those arising from the great and rapidly increasing automobile traffic.

Major Factors in Advancing Industrial Efficiency.

The fact that national output per capita has long been greater in the United States than in most other countries is in some measure owing to the abundance of agricultural land in proportion to the population, and the abundance and variety of mineral resources. During the earlier history of the country its progress was in considerable part owing to the opening up of new resources. The increase in output during recent decades, however, can not be attributed to this cause. There have been some new discoveries of minerals, notably of petroleum, but these contributions have been offset by the partial using up of other resources and by the necessity, with the growth of population, of extending cultivation to somewhat inferior lands. The principal factors in the recent increase in productivity are, therefore, human as distinguished from natural factors.

Education and Research.

Among these factors is the advance in education and scientific research. (Table 11.) Taking account both of the proportion of the children in school and of the average duration of attendance, the amount of elementary and secondary instruction given in 1924 was 154 per cent greater than in 1870, and 85 per cent greater than in 1890. In 1890 about 5½ per cent of the children between the ages of 14 and 17 years were in high schools and academies; in 1924 over 33 per cent. Of persons 18 to 21 years of age about 1½ per cent were in colleges and universities in 1890, and more than 7½ per cent in 1924. Meantime instruction has become much better in quality and especially more practical and more conducive to thinking power and to productive capacity. The rapidly expanding scientific research in colleges and universities, in endowed research institutions and in laboratories of great industrial concerns, has also proved of great practical importance in the progress of industry.

Table 11.—Progress of Education in the United States

Item	1870	1890	1910	1920	1924
Pupils in elementary and secondary schools, per cent of total population for 5 to 17 years of age	57.0	68.6	73.5	77.8	82.8
Average days' attendance in the year	78	86	113	121	132
Expenditure for elementary and secondary schools per person 5 to 17 years of age	$5	$7	$24	$37	$62
Average annual salary of teachers in elementary and secondary schools	$189	$252	$485	$871	$1,227
Pupils in high schools and academies, thousands	--------	298	1,032	2,041	2,754
Per cent of total population 14 to 17 years of age	--------	5.6	14.3	26.4	33.2
Pupils in collegiate, postgraduate, and professional courses, thousands	--------	78	204	414	607
Per cent of total population 18 to 21 years of age	--------	1.5	2.8	5.6	7.7
Receipts of institutions of higher learning, exclusive of additions to endowment, millions of dollars	--------	--------	78	189	341
Percentage of illiterates in population 10 years of age and over:					
All classes	20.0	13.3	7.7	6.0	--------
All whites	11.5	7.7	5.0	4.0	--------
Native whites	--------	6.2	3.0	2.0	--------
Negro	81.4	57.1	30.4	22.9	--------

Capital.

Another factor in the progress of industry is the large and increasing use of capital. The reports of corporations for taxation purposes furnish significant data as to capital used in production; the great bulk of industry is conducted by corporations. The combined assets of corporations in the fields of mining, manufacturing, transportation, and public utilities in 1924 were more than $90,000,000,000, of which about $28,000,000,000 were in the form of current assets—inventory, accounts receivable, and cash—and the remainder in fixed assets—plant and equipment. In the mining industry the assets of corporations were equal to about $10,500 per wage earner employed (including the wage earners of noncorporate concerns). The corresponding proportion for manufacturing industries was about $5,250, and for the steam railroads more than $8,000.

The amount of capital used is rapidly increasing. The increase in the savings deposits in banks, the increase in assets of building and loan associations, the premiums paid to life insurance companies less the operating expenses, and the additions to surpluses of corporations, together total about $6,000,000,000 annually. There are, of course, many other forms of savings, apart from these. It has been roughly estimated that the total annual savings amount to about $10,000,000,000. (See section on Finance.) These savings largely go directly to aid production. They include also, however, sums invested, as in homes and public improvements, for the purpose of producing not saleable commodities or services but a continuous use or enjoyment.

Machinery and Power.

The use of capital in industry is reflected conspicuously in the machine equipment of farms, factories, mines, and other productive enterprises. The relative abundance of capital makes it possible with advantage to discard promptly the less efficient machine in favor of the more efficient.

A rough measure of the use of machinery is furnished by the statistics of the capacity of prime movers. In manufacturing industries each wage earner on the average is aided by prime movers of a capacity of 4.3 horsepower; in 1899 the average was 2.1. The power employed on American railways has similarly increased. The average capacity of the individual locomotive has doubled since 1900 and it requires no more men to operate a locomotive than before.

A still broader view of the use of power is gained from the data of the production of mineral fuels and of water power. (See section on Fuel and Power.) The output of these fuels and water power, reduced to the terms of equivalent of coal, has averaged during recent years about 7½ tons per capita of the entire population, a figure four or five times greater than half a century ago, and about twice as great as in 1900. Moreover the heat and energy derived have increased much more still by reason of the growing efficiency with which fuels are utilized.

Mass Production.

Except in agriculture, where the so-called one-man farm has thus far proved more efficient, American industry is characterized by large-scale production.

In 1923 there were more than 10,000 manufacturing establishments in this country with an output each exceeding $1,000,000, and these together contributed two-thirds of the value of all factory products. (Table 12.) There were nearly 1,000 factories each employing more than 1,000 wage earners and these together reported 2,100,000 employees out of an aggregate of 8,800,000 in all plants. Considerably more than half of the total number of factory workers were in plants employing 250 or more wage earners each. The relative importance of large plants has increased materially; in 1909 (the first year for which comparable statistics are available) 43 per cent of all factory wage earners were in plants with more than 250 employees.

Table 12.—Relation of Power Equipment to Number of Workers

Year	Manufacturing industries		
	Wage earners	Horsepower of prime movers	Horsepower per wage earner
1899	4,713,000	10,000,000	2.1
1909	6,615,000	18,675,000	2.8
1914	7,036,000	22,437,000	3.2
1919	9,096,000	29,504,000	3.2
1923	8,778,000	33,094,000	3.8
1925	8,384,000	35,735,000	4.3
	Mining and quarrying		
1902	581,728	2,867,562	4.9
1909	1,065,283	4,608,253	4.3
1919	1,088,189	6,723,786	6.2

	Railways				
	Number of employees	Aggregate tractive power of locomotives	Total capacity of freight cars	Per employee	
				Tractive power	Car capacity
		Thousands of pounds	*Tons*	*Pounds*	*Tons*
Fiscal years:					
1899	929,000	[1] 660,000	[1] 34,980,000	710	37.7
1909	1,503,000	1,549,000	73,665,000	1,030	49.0
1914	1,710,000	1,932,000	90,977,000	1,130	53.2
Calendar years:					
Class I—					
1919	[2] 1,935,000	2,313,000	99,001,000	1,200	51.2
1923	[2] 1,879,000	2,544,000	101,318,000	1,350	53.9
1925	[2] 1,769,000	2,587,000	105,570,000	1,460	59.7

[1] Number of locomotives, 36,703; estimated average capacity, 18,000 pounds. Number of cars, 1,295,510; estimated average capacity, 27 tons.

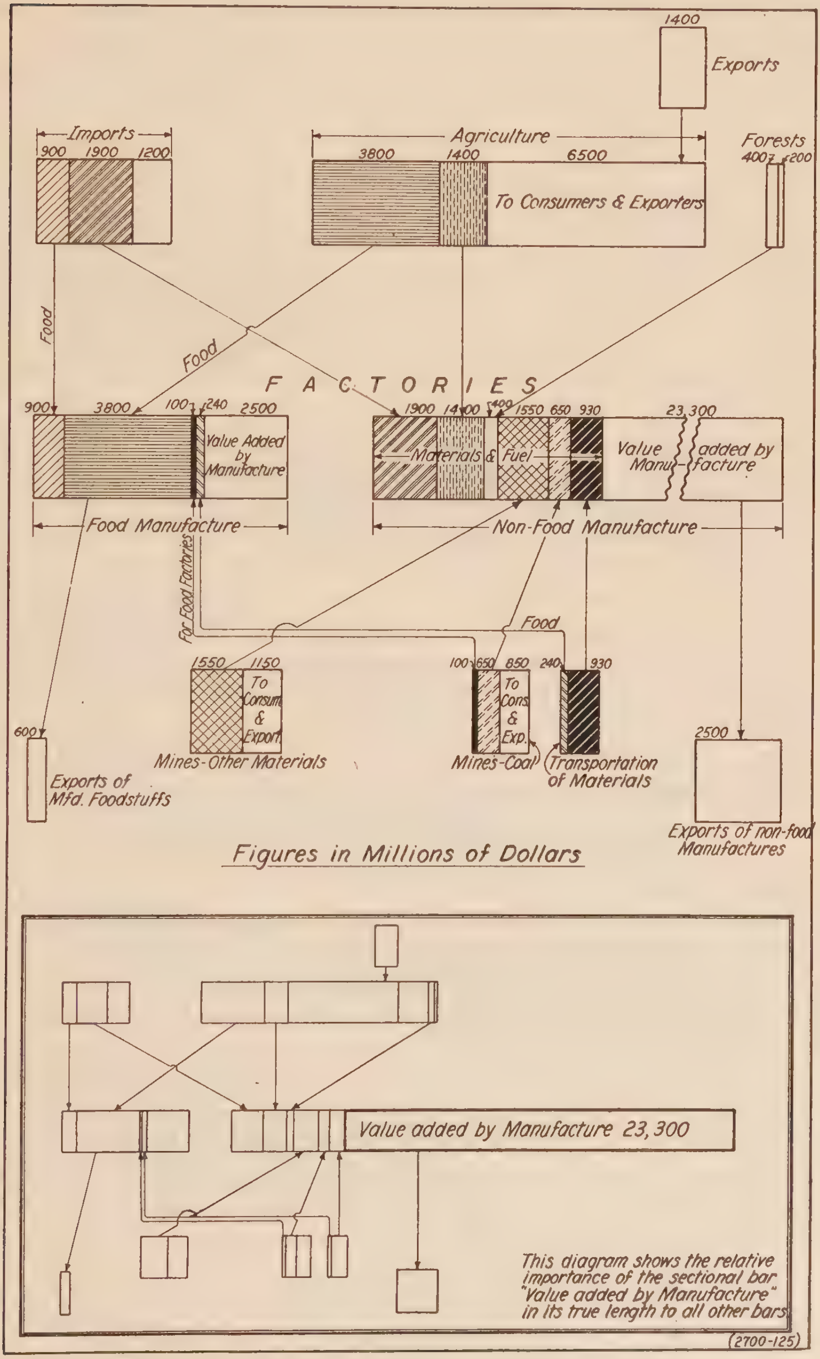
[2] Including Class I switching and terminal companies; 1919 estimated as to such companies.

Source: Bureau of the Census, Department of Commerce and Interstate Commerce Commission.

Large scale production is particularly conducive to low costs where processes are repetitive—that is, where large quantities of the same product are turned out. The big plant can in such cases introduce highly specialized machinery adapted to the various particular tasks, whereas the smaller plant must often use machines intended for more general purposes, turning them first to one and then to another operation. Repetition also permits close specialization of labor.

The great magnitude of the domestic market has much to do with large-scale operation of plants. The United States has a population much greater than that of any other country of high standard of living and the per capita income of its people averages much higher than in most other countries. For many manufactured articles the

Chart VI.—**MANUFACTURES: IMPORTS AND EXPORTS IN RELATION TO THE MANUFACTURING INDUSTRY**



American market is greater than that of all other countries combined. In Europe the many national boundaries place barriers on the distribution of products, and tend to limit the size of the plants producing any given article.

The relation of manufacturing to imports and exports is shown graphically in Chart VI.

Elimination of Waste.

Much of the progress of industry, especially during recent years, has been owing to the fact that problems of production and distribution have been systematically studied. The result has been to render discovery, invention, and improvement largely an organized and continuous process rather than a haphazard one. This movement has come to be commonly designated as "elimination of waste" or "simplified practice." These systematic movements are conducted by individual corporations and other concerns, by associations of producers, dealers and consumers, by special research organizations, by universities, and by the Federal and State Governments. There is a growing practice of cooperation among all interests toward this end.

One of the several important directions taken in recent years has been concerted agreement for the simplification of products. In scores of branches of industry, producers, dealers, and consumers have agreed to the cutting out of unnecessary sizes, shapes, and varieties of products, concentrating production on a limited number of standard forms, with the consequent marked reduction in average unit cost. The Department of Commerce has played a large part in this movement, which is discussed under the heading "Developments in simplified practice" on page 33.

CENSUS STATISTICS OF MANUFACTURES

Census of 1925.

Complete statistics of manufacturing are furnished by the censuses which were taken decennially up to 1899, quinquennially from that time to 1919, and since then biennially. The results of the 1925 census have recently become available and the totals for the principal items are shown in Table 13, with comparison for similar data for each census since 1899. As the totals for output are necessarily expressed as values, which are affected by price changes, the general wholesale price index of the Department of Labor is also included in this table. The data are shown graphically in Chart VII. The number of wage earners[5] in 1925 was 78 per cent greater than in 1899, 22 per cent greater than in 1914, and 21 per cent greater than in 1921, but was smaller than in either 1919 or 1923. There were 384,000 less workers reported in 1925 than in 1923, a decrease of about 4 per cent. Every census since 1899 shows an increase in the average earnings of the workers. The average earnings per worker in 1925 amounted to about $1,280, which was almost three times as much as in 1899; over twice as much as in 1914, and about 2 per cent greater than in 1923. These figures indicate that the payments to wage earners have increased relatively more during the first quarter of a century than the cost of living, although there has been a considerable decrease in working hours during this period.

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[5] The average number of wage earners is ascertained by taking the actual number at a given day each month, adding, and dividing by 12. In the case of seasonal industries the number thus reached is much less than the number actually employed during the active season, and in all industries the effect of unemployment is eliminated, but not the effect of over-time or part-time work. These characteristics of the statistics of wage earners should be borne in mind in considering average earnings obtained by dividing the amount of wages paid by the number of wage earners.

Chart VII.—**INDEXES OF CENSUS STATISTICS OF MANUFACTURING INDUSTRY**

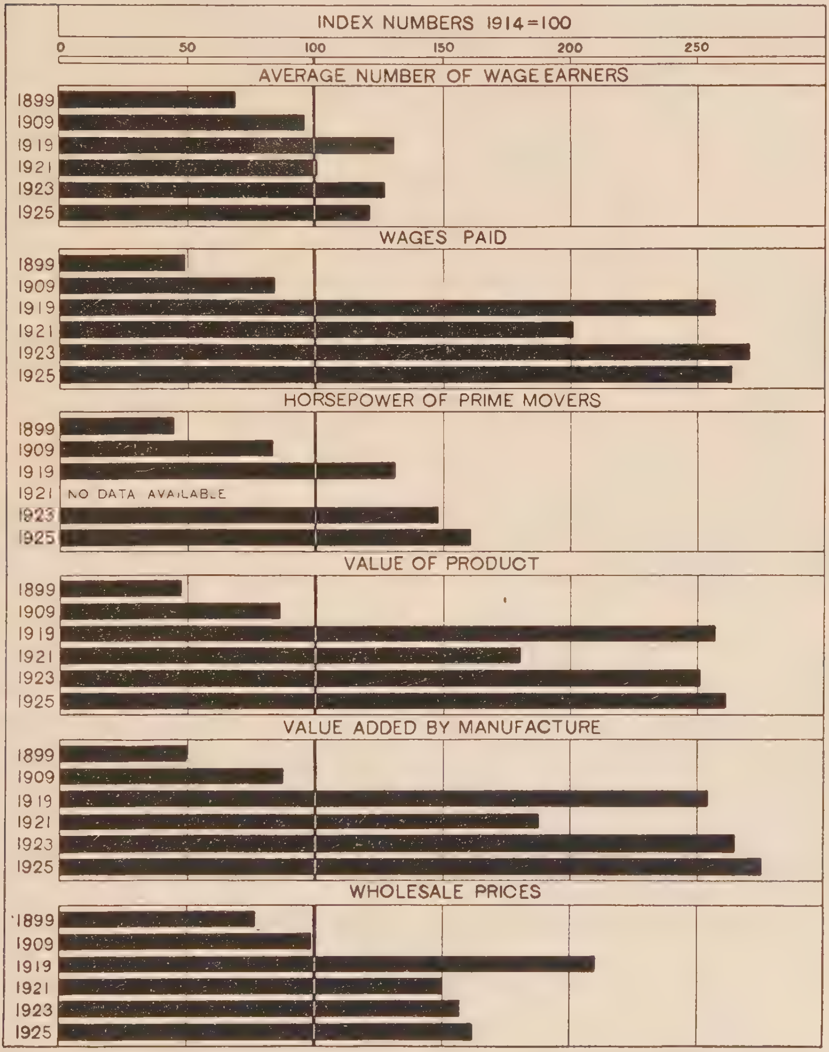

Table 13.—General Census Statistics of Manufactures

NOTE.—The census statistics as originally published covered, for years prior to 1921, all establishments with products valued at $500 or more; but for 1921 and subsequent years no data have been included for establishments whose products were valued at less than $5,000. The statistics for groups of industries and individual industries in Tables 15 and 17 are as originally published, so far as the minimum value of products limit is concerned, but in Table 13 the figures for number of establishments, average number of wage earners, and value of products for 1914 and 1919 have been revised by excluding the data for establishments with products valued at less than $5,000, thus rendering the figures for these items strictly comparable for the last five censuses. Such revision is not, however, possible in the cases of salaried officers and employees, salaries, wages, and primary horsepower and consequently these items are not strictly comparable as between 1919 and earlier years, on the one hand, and 1921 and subsequent years, on the other; and likewise the average rates of annual earnings in 1914 and 1919 were actually slightly less than appears from the table. (The average earnings as given on p. 27 are computed from the data as originally published and are closely comparable for the censuses for 1909 to 1925.) As to all items except number of establishments, the change in basis had only a negligible effect on the comparability of the figures as between different census years. In fact, the establishments reporting, at the census for 1919, products valued at less than $5,000 contributed only a fraction of 1 per cent of the aggregate number of wage earners and value of products.

[Salaries, wages, cost of materials, and values in millions of dollars; number of establishments, salaried officers and employees, wage earners, and horsepower in thousands]

Period [1]	Number of establishments	Salaried officers and employees	Wage earners (average number)	Salaries	Wages	Primary horsepower	Cost of materials	Value of products	Value added by manufacture	General wholesale price index 1913=100
1899	208	364	4,713	381	2,008	9,961	6,576	11,407	4,831	75
1904	216	520	5,468	574	2,610	13,296	8,500	14,794	6,294	86
1909	268	790	6,615	939	3,427	18,552	12,143	20,672	8,529	97
1914	177	963	6,896	1,274	4,068	22,291	14,278	23,988	9,710	98
1919	214	1,429	8,990	2,864	10,453	29,298	36,989	61,737	24,748	206
1921	196	1,141	6,938	2,551	8,193	(2)	25,155	43,427	18,272	147
1923	196	1,350	8,768	3,001	10,999	33,057	34,481	60,258	25,777	154
1925	187	[3] 1,256	8,384	[3] 2,921	10,729	35,735	35,931	62,706	26,775	159
Increase 1914 to 1925:										
Amount	10	293	1,488	1,647	6,661	13,444	21,653	38,718	17,065	--------
Per cent	5.6	30.4	21.6	129.3	163.7	60.3	151.7	161.4	175.7	--------

[1] Data for the coffee-roasting and spice-grinding industry are included for 1914 and earlier years, but not for 1919 and subsequent years.

[2] Not called for in schedules for 1921.

[3] Not including 84,646 salaried officers and employees of central administrative offices, with salaries aggregating $225,512,798. For purposes of comparison with the figures published for earlier years, these figures should be added to those given in the table, making combined totals of 1,340,147 salaried officers and employees and $3,146,774,676.

Source: Bureau of the Census.

Labor has been much aided by the constantly increasing use of machinery, which usually results in a greater quantitative output per wage earner. One indication of greater use of machinery is the increase in the horsepower of prime movers installed in manufacturing establishments. From 1914 to 1925 horsepower increased by over 60 per cent, which is about three times as large a percentage gain as that in the number of wage earners. This growth in horsepower does not fully reflect the increase in efficiency of machinery, but only that in the quantity or magnitude of the machinery.

Table 14.—Percentage of Change in Census Statistics of Manufacturing Industries

[Based on Table 13]

Item	Per cent increase or decrease (−)			
	1899 to 1925	1914 to 1925	1919 to 1925	1923 to 1925
Wage earners	77.9	21.6	−6.7	−4.4
Wages	434.3	163.7	2.6	−2.5
Cost of materials	446.4	151.7	−2.9	4.2
Value of products	449.7	161.4	1.6	4.1
Value added by manufacture	454.2	175.7	8.2	3.9
Primary horsepower	258.7	60.3	22.0	8.1

Source: Bureau of the Census.

There is a great amount of duplication in the aggregate cost of materials and value of production as reported by the census owing to the use of partly finished goods produced by one establishment as materials for other establishments in the same or other industries. The total value of production, which includes this duplication, amounted to $62,706,000,000 in 1925, which was about five and one-half times as much as in 1899, over two and one-half times as great as in 1914, and was 4 per cent more than in 1923.

The value added to materials by manufacture is a net figure and represents the real service of manufacturing industries, though not, of course, the net value of manufactured products. This value as reported by the census of 1925 was $26,775,000,000, which was about five and one-half times as great as in 1899, 176 per cent more than in 1914, and 4 per cent more than in 1923.

The increase in manufacturing industry from 1914 to 1925 becomes appreciably greater if the manufacture of distilled, malt, and vinous liquors, which has been reduced to a minimum by the prohibition amendment, is excluded. The principal items for these two censuses with the liquor industries omitted are as shown in the following table:

Item	1914	1925	Per cent of increase [1]
Wage earners (average number)	6,817,000	8,383,000	23.0
Wages paid	$4,004,778,000	$10,727,869,000	167.9
Value of product	$23,172,078,000	$62,652,572,000	170.4
Value added by manufacture	$9,190,322,000	$26,757,254,000	191.1

[1] As to the comparability of the data for the two years see headnote, Table 13.

Manufactures by Groups of Industries.

The Bureau of the Census divides manufacturing industries into 16 major groups. (Tables 15 and 16; see also headnote, Table 13.)

The value added by manufacture in 1925 was greater for each of these groups than for 1914 and was also greater than for 1923 for all groups except musical instruments, railroad repair shops, textiles, leather, and lumber. The largest increases for 1925 as compared with 1923 were shown by tobacco manufactures, rubber products, paper and printing, and chemicals, while the value added to products by manufacture showed a most significant decrease in the case of musical instruments and railroad repair shops.

The number of wage earners was greater than in 1914 for all groups except tobacco manufactures and musical instruments, the increases ranging from 91 per cent for rubber products to 5 per cent for stone, clay, and glass products. Comparisons with 1923 showed a decrease in number of wage earners for all industries except rubber products, paper and printing, and stone, clay, and glass products. The principal decreases in wage earners were shown by the musical instruments,

Table 15.—Manufactures: Census Statistics by Groups of Industries

[Figures for wage earners and horsepower are in thousands; wages, cost of materials, value of products, and value added by manufacture are in millions of dollars. See headnote, Table 13, p. 26]

Item	1899	1914	1919	1921	1923	1925	1899	1914	1919	1921	1923	1925
	Food and kindred products						Tobacco manufactures					
Wage earners	312	536	723	618	672	665	142	179	157	150	146	132
Wages	129	303	766	737	786	794	50	78	124	121	120	112
Cost of materials	1,838	3,907	10,009	5,957	6,766	7,749	107	207	484	608	516	426
Value of products	2,274	4,978	12,444	8,041	9,227	10,419	283	490	1,013	1,048	1,044	1,091
Value added by manufacture	436	1,071	2,435	2,084	2,461	2,670	176	283	529	440	528	665
Primary horsepower	(1)	2,504	3,173	(1)	3,686	3,882	(1)	35	43	(1)	43	42
	Textiles and their products						Leather and its manufactures					
Wage earners	1,030	1,506	1,610	1,510	1,715	1,627	238	307	349	280	345	315
Wages	342	676	1,481	1,472	1,744	1,654	100	169	363	314	389	356
Cost of materials	896	2,014	5,380	3,801	5,395	5,348	396	753	1,714	934	1,083	1,015
Value of products	1,637	3,445	9,211	6,957	9,463	9,123	584	1,105	2,610	1,544	1,880	1,768
Value added by manufacture	741	1,431	3,831	3,156	4,068	3,775	188	352	896	610	797	753
Primary horsepower	(1)	2,717	3,248	(1)	3,784	3,986	(1)	311	383	(1)	413	414
	Rubber products [2]						Paper and printing					
Wage earners	------	74	159	103	138	141	298	453	510	467	527	537
Wages	------	44	194	124	182	191	140	296	565	637	743	806
Cost of materials	------	163	594	378	501	719	214	581	1,308	1,332	1,544	1,614
Value of products	------	301	1,138	705	959	1,255	606	1,456	3,015	3,150	3,772	4,144
Value added by manufacture	------	138	544	327	458	536	392	875	1,707	1,818	2,228	2,530
Primary horsepower	------	199	429	(1)	606	657	(1)	2,039	2,346	(1)	2,744	3,061
	Iron and steel and products [3]						Nonferrous metals and products					
Wage earners	734	618	859	572	893	851	191	238	304	212	297	275
Wages	382	422	1,244	731	1,325	1,284	97	154	359	256	394	381
Cost of materials	987	1,316	3,424	2,140	4,153	3,734	497	964	1,737	886	1,767	1,947
Value of products	1,793	2,138	5,890	3,456	6,829	6,462	749	1,328	2,517	1,407	2,634	2,834
Value added by manufacture	806	822	2,466	1,316	2,676	2,728	252	364	780	521	867	887
Primary horsepower	(1)	4,588	6,430	(1)	7,202	7,519	(1)	549	952	(1)	1,169	1,158
	Machinery [4]						Transportation equipment, air, land, and water [5]					
Wage earners	------	619	998	662	908	859	363	313	859	406	606	560
Wages	------	412	1,240	833	1,254	1,225	189	231	1,259	591	964	908
Cost of materials	------	663	1,973	1,361	1,892	1,985	302	640	3,201	1,803	3,394	3,389
Value of products	------	1,582	4,769	3,235	4,728	5,020	583	1,137	5,627	3,018	5,333	5,452
Value added by manufacture	------	919	2,796	1,874	2,836	3,035	281	497	2,426	1,215	1,939	2,063
Primary horsepower	------	1,257	2,060	(1)	2,300	2,714	(1)	602	1,454	(1)	1,624	1,889
	Railroad repair shops [6]						Lumber and allied products					
Wage earners	------	366	516	418	523	458	547	865	864	703	932	921
Wages	------	253	727	672	773	668	212	447	860	670	963	978
Cost of materials	------	262	548	507	631	564	561	766	1,368	1,198	1,666	1,725
Value of products	------	553	1,354	1,267	1,520	1,333	1,031	1,616	3,113	2,457	3,633	3,689
Value added by manufacture	------	291	806	760	889	769	470	850	1,745	1,259	1,967	1,964
Primary horsepower	------	479	645	(1)	806	942	(1)	3,176	3,410	(1)	3,336	3,473

[1] No data.
[2] Included in "Miscellaneous industries" in 1899.
[3] Includes "Machinery" for 1899.
[4] Included in "Iron and steel and products" for 1899.
[5] Includes "Railroad repair shops" in 1899.
[6] Included in "Transportation equipment, air, land, and water" in 1899.

Table 15.—Manufactures: Census Statistics by Groups of Industries—Con.

Item	1899	1914	1919	1921	1923	1925	1899	1914	1919	1921	1923	1925
	Stone, clay, and glass products						Chemicals, mineral fuels, and alcoholic liquors					
Wage earners	245	336	303	253	352	353	164	349	461	314	384	381
Wages	109	206	333	307	454	467	81	225	550	404	501	506
Cost of materials	95	241	423	428	573	604	478	1,485	3,904	3,112	3,680	4,180
Value of products	294	619	1,112	1,033	1,563	1,641	978	2,685	6,091	4,595	5,707	6,430
Value added by manufacture	199	378	689	605	990	1,037	500	1,200	2,187	1,483	2,027	2,250
Primary horsepower	(1)	1,494	1,585	(1)	1,936	2,348	(1)	1,920	2,425	(1)	2,740	2,983
	Musical instruments and phonographs [2]						Miscellaneous industries [7]					
Wage earners	------	49	69	45	58	47	483	216	291	224	272	262
Wages	------	31	76	54	75	63	203	120	312	268	334	337
Cost of materials	------	49	137	95	124	99	490	349	842	614	794	834
Value of products	------	120	321	213	283	232	1,004	664	1,664	1,300	1,684	1,816
Value added by manufacture	------	71	184	118	159	133	514	315	822	686	890	982
Primary horsepower	------	58	91	(1)	90	97	(1)	362	623	(1)	578	605

[1] No data.

[2] Included in "Miscellaneous industries" in 1899.

[7] Includes "Rubber products" and "Musical instruments and phonographs" in 1899.

Source: Bureau of the Census.

Table 16.—Percentages of change (minus (—) sign indicates decrease) from 1914 and 1923 to 1925 in Census Statistics of Manufactures, by Groups of Industries

[Based on Table 15]

Item	1914 to 1925	1923 to 1925	1914 to 1925	1923 to 1925	1914 to 1925	1923 to 1925	1914 to 1925	1923 to 1925
	Food and kindred products		Textiles and products		Rubber products		Iron and steel and products	
Wage earners	24.1	−1.0	8.0	−5.1	90.5	2.2	37.7	−4.7
Wages	162.0	1.0	144.7	−5.2	334.1	4.9	204.3	−3.1
Cost of materials	98.3	14.5	165.5	− .9	341.1	43.5	183.7	−10.1
Value of products	109.3	12.9	164.8	−3.6	316.9	30.9	202.2	−5.4
Value added by manufacture	149.3	8.5	163.8	−7.2	288.4	17.0	231.9	1.9
Primary horsepower	55.0	5.3	46.7	5.3	230.2	8.4	63.9	4.4
	Machinery		Railroad repair shops		Stone, clay, and glass products		Musical instruments and phonographs	
Wage earners	38.8	−5.4	25.1	−12.4	5.1	0.3	−4.1	−19.0
Wages	197.3	−2.3	164.0	−13.6	126.7	2.9	103.2	−16.0
Cost of materials	199.4	4.9	115.3	−10.6	150.6	5.4	102.0	−20.2
Value of products	217.3	6.2	141.0	−12.3	165.1	5.0	93.3	−18.0
Value added by manufacture	230.3	7.0	164.3	−13.5	174.3	4.7	87.3	−16.4
Primary horsepower	115.9	18.0	96.7	16.9	57.2	21.3	67.2	7.8
	Tobacco manufactures		Leather and manufactures		Paper and printing		Nonferrous metals and products	
Wage earners	−26.3	−9.6	2.6	−8.7	18.5	1.9	15.5	−7.4
Wages	43.6	−6.7	110.7	−8.5	172.3	8.5	147.4	−3.3
Cost of materials	105.8	−17.4	34.8	−6.3	177.8	4.5	102.0	10.2
Value of products	122.7	4.5	60.0	−6.0	184.6	9.9	113.4	7.6
Value added by manufacture	135.0	25.9	113.9	−5.5	189.1	13.6	143.7	2.3
Primary horsepower	20.0	−2.3	33.1	.2	50.1	11.6	110.9	− .9
	Transportation equipment, air, land, and water		Lumber and allied products		Chemicals, mineral fuels, and alcoholic liquors		Miscellaneous industries	
Wage earners	78.9	−7.6	6.5	−1.2	9.2	−0.8	21.3	−3.7
Wages	293.1	−5.8	118.8	1.6	124.9	1.0	180.8	.9
Cost of materials	429.5	− .1	125.2	3.5	181.5	13.6	139.0	5.0
Value of products	379.5	2.2	128.3	1.5	139.5	12.7	173.5	7.8
Value added by manufacture	315.1	6.4	131.1	− .2	87.5	11.0	211.7	10.3
Primary horsepower	213.8	16.3	9.4	4.1	55.4	8.9	67.1	4.7

Source: Bureau of the Census.

Table 17.—Manufactures: Comparative

[Wages and values in millions and tenths of millions of dollars; wage earners and horsepower

Industry	Average number of wage earners				Wages				Horsepower
	1914	1921	1923	1925	1914	1921	1923	1925	1914
Butter	14.1	18.5	20.8	17.8	10.1	22.9	25.5	22.3	91.4
Condensed milk	6.0	9.5	8.7	7.1	3.7	10.3	10.6	8.4	19.6
Slaughtering and meat packing	98.8	117.0	132.8	120.4	62.1	152.9	167.6	159.4	252.1
Canning and preserving, fruits and vegetables.	62.9	51.7	72.5	85.9	23.1	36.8	57.2	67.4	106.5
Flour and grain mills	39.7	35.4	35.2	32.0	24.6	43.1	41.7	39.7	821.4
Bakery products	124.1	148.5	162.6	160.4	76.9	198.9	214.6	219.6	106.8
Sugar refining (cane)	11.3	15.5	15.3	14.5	7.8	19.5	20.0	19.0	49.7
Beverages [1]	15.5	33.2	29.3	27.4	8.9	45.7	37.7	36.1	24.7
Cotton goods	379.4	412.1	471.5	445.2	146.1	328.2	396.6	353.9	1,563.8
Knit goods	150.5	161.9	194.2	186.7	59.8	132.2	168.3	168.7	122.9
Silk manufactures	108.2	121.4	125.2	132.5	47.1	113.4	126.8	142.7	111.4
Woolen goods, etc.[2]	190.0	185.3	229.8	199.1	90.7	203.6	271.5	234.7	418.4
Clothing, men's and women's	342.7	310.1	328.0	300.8	179.4	387.0	411.9	378.9	63.1
Blast furnaces	29.4	18.7	36.7	29.2	22.8	29.4	58.9	45.3	1,222.3
Steel works and rolling mills	248.7	235.5	388.2	370.7	188.1	325.0	637.8	615.0	2,703.6
Stoves and hot-air furnaces	29.5	24.5	33.0	29.4	20.8	29.8	45.9	41.5	41.1
Tools and cutlery, etc	42.3	41.2	55.8	50.7	24.4	44.7	69.5	65.8	92.4
Steam fittings, etc	26.4	30.8	44.1	43.3	16.7	39.6	64.8	64.0	38.4
Structural iron works [3]	47.2	32.9	51.6	48.3	33.4	47.5	80.8	77.4	109.1
Hardware, n. e. s	43.7	35.2	52.2	52.3	23.8	36.2	63.5	65.6	56.8
Lumber and timber products	479.8	364.2	495.9	474.0	240.0	313.5	476.0	456.7	2,190.4
Planing-mill products	96.2	78.0	103.0	111.3	61.9	96.0	133.3	146.6	410.3
Furniture	130.1	124.3	168.1	180.9	73.3	144.1	204.5	225.2	239.7
Leather, tanned	55.9	49.0	59.7	53.0	31.9	57.7	73.8	66.8	171.7
Boots and shoes, other than rubber	191.6	183.5	225.2	207.0	105.7	205.0	250.3	225.8	96.0
Rubber products [4]	74.0	103.3	137.9	141.1	44.2	123.6	182.1	190.6	199.2
Paper and wood pulp	88.5	105.3	120.7	123.8	53.2	127.0	151.5	160.1	1,612.0
Printing and publishing, and allied industries.	272.1	268.1	291.0	296.3	195.5	407.7	459.9	502.1	327.1
Chemicals, n. e. s.[5]	32.3	46.3	74.9	55.7	22.1	58.0	99.8	80.4	267.9
Coke	21.1	16.1	28.4	23.2	14.3	23.8	48.1	36.8	117.1
Fertilizers	22.8	16.9	18.6	19.6	10.5	16.0	16.4	17.7	113.9
Gas, illuminating and heating	43.8	35.0	42.3	47.0	26.8	53.3	59.6	67.4	213.3
Cottonseed oil and cake	21.8	16.2	12.7	16.2	8.5	12.3	7.9	11.4	249.8
Paints and varnishes	16.1	18.0	22.8	25.5	10.2	23.3	29.9	35.4	67.6
Petroleum refining	25.4	63.2	66.7	65.3	19.4	102.3	103.8	104.6	128.2
Soap	14.2	16.6	17.0	14.9	8.1	18.9	20.8	18.0	34.1
Marble, slate, and stone work	54.9	30.3	40.1	36.6	38.0	44.1	61.6	59.6	206.1
Cement	27.9	26.2	35.1	38.4	18.2	34.4	49.7	53.9	490.4
Clay products	100.2	68.8	102.7	102.8	54.9	73.7	123.8	127.1	442.5
Pottery, including porcelain ware	26.7	28.5	36.8	36.5	16.7	35.4	46.7	46.8	22.3
Glass	74.5	54.7	73.3	69.4	48.7	68.2	89.9	86.7	162.9
Copper	17.7	8.3	20.7	15.6	16.1	11.2	31.3	22.6	195.0
Lead	7.4	4.5	6.2	6.1	6.1	6.0	8.8	9.0	29.7
Brass, bronze, and alloys	40.3	39.8	64.7	62.9	25.1	46.3	88.8	90.6	122.0
Aluminum manufactures	4.6	9.6	16.3	14.4	2.6	10.8	19.8	19.8	12.3
Tobacco and snuff, etc	26.0	16.6	16.3	15.0	9.6	12.7	12.7	12.2	21.3
Cigars and cigarettes	152.9	133.4	130.0	117.1	68.3	108.2	107.7	99.4	13.5
Agricultural implements	48.5	30.4	31.0	28.7	34.6	39.8	40.5	37.4	121.3
Electrical machinery	118.1	161.2	234.9	239.9	73.8	194.2	305.5	323.8	226.3
Engines and water wheels	29.7	35.6	48.5	51.1	21.4	52.0	70.9	73.6	62.1
Foundries and machine shops [6]	362.5	373.7	517.8	462.5	244.1	476.4	735.8	684.2	763.8
Motor vehicles (excluding cycles)	79.3	143.7	241.4	197.7	66.9	222.0	406.7	341.2	105.0
Motor-vehicle bodies and parts	47.8	69.1	163.5	228.4	35.0	96.8	253.1	372.7	67.9
Locomotives [7]	17.4	16.6	30.7	12.8	11.1	20.5	51.9	18.2	50.4
Cars, steam and electric railroad [7]	58.1	48.0	80.6	50.4	43.9	70.9	129.2	77.2	135.9
Shipbuilding, steel	33.5	93.3	52.0	38.3	25.2	137.1	76.4	56.7	83.7
Steam-railroad repair shops	339.5	385.0	488.5	425.2	234.5	624.2	737.7	619.8	433.9

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[1] Cereal beverages ("near beer" and similar soft drinks) for 1921, 1923, and 1925, included under "Beverages"; for earlier years included in "Liquors, malt."

[2] Includes "Woolen goods," "Worsted goods," and "Carpets and rugs, wool."

[3] Similar products are manufactured to a large extent by steel works and rolling mills. The figures here given refer only to establishments engaged primarily in the manufacture of the specified classes of products.

[4] Includes "Rubber tires and inner tubes," "Boots and shoes, rubber," and "Rubber goods, not elsewhere classified," and also data formerly classified as "Belting, rubber."

Census Statistics by Major Industries

in thousands and tenths. Horsepower not reported for 1921. See headnote, Table 13, p. 26]

Horsepower—Continued		Value of products				Value added by manufacture				Industry
1923	1925	1914	1921	1923	1925	1914	1921	1923	1925	
126. 4	126. 9	243. 4	479. 7	654. 5	683. 6	30. 8	72. 2	93. 2	80. 2	Butter.
48. 3	53. 9	69. 2	176. 8	200. 1	171. 2	13. 4	44. 3	35. 4	31. 2	Condensed milk.
382. 1	441. 5	1, 652. 0	2, 200. 9	2. 585. 8	3, 050. 3	210. 3	332. 7	409. 8	425. 1	Slaughtering, etc.
175. 7	187. 5	210. 1	365. 7	515. 3	616. 1	71. 1	128. 0	216. 3	230. 5	Canning and preserving fruits, etc.
709. 9	669. 9	877. 7	1, 179. 7	1, 048. 6	1, 298. 0	125. 4	185. 9	162. 6	172. 6	Flour mills.
193. 2	227. 3	491. 9	1, 090. 0	1, 122. 9	1, 268. 2	217. 6	491. 4	548. 4	600. 2	Bakery products.
72. 7	89. 1	279. 4	466. 6	726. 2	606. 6	25. 3	40. 0	44. 4	56. 7	Sugar refining.
221. 3	168. 9	58. 4	237. 6	228. 7	237. 8	31. 6	121. 5	129. 2	139. 3	Beverages.[1]
2, 153. 3	2, 236. 4	676. 6	1, 278. 2	1, 901. 1	1, 714. 4	245. 0	570. 8	753. 8	637. 2	Cotton goods.
183. 7	176. 6	258. 9	634. 1	848. 2	810. 0	112. 2	273. 6	364. 2	356. 0	Knit goods.
206. 0	212. 6	254. 0	583. 4	761. 3	809. 0	109. 6	245. 9	282. 3	324. 9	Silk manufactures.
592. 3	633. 3	448. 6	859. 5	1, 262. 0	1, 146. 7	159. 8	409. 3	541. 8	422. 1	Woolen goods.[2]
80. 3	69. 1	932. 1	1, 957. 5	2, 585. 4	2, 380. 9	449. 7	942. 2	1, 191. 0	1, 099. 2	Clothing.
1, 832. 9	1, 380. 4	317. 7	419. 8	1, 007. 6	765. 3	53. 1	58. 7	180. 0	147. 9	Blast furnaces.
4, 110. 2	4, 763. 5	918. 7	1, 481. 7	3, 154. 3	2, 946. 1	327. 8	476. 5	1, 109. 9	1, 134. 1	Steel works, etc.
65. 4	63. 5	67. 9	101. 6	155. 8	140. 8	44. 1	60. 6	102. 4	93. 6	Stoves and furnaces.
142. 9	156. 2	77. 6	145. 7	240. 0	241. 8	50. 8	96. 4	166. 0	170. 5	Tools, cutlery, etc.
91. 1	109. 3	63. 9	127. 4	222. 0	228. 9	37. 0	77. 2	138. 7	151. 6	Steam fittings, etc.
205. 5	211. 7	159. 4	250. 1	406. 1	421. 0	71. 8	99. 1	180. 6	183. 3	Structural iron work[3]
84. 0	98. 3	77. 4	120. 6	216. 0	225. 1	46. 5	79. 1	135. 4	147. 5	Hardware.
1, 932. 1	2, 049. 5	715. 3	902. 5	1, 494. 5	1, 421. 2	433. 4	524. 6	921. 4	841. 7	Lumber and timber.
493. 4	597. 1	307. 7	462. 6	692. 8	710. 9	123. 4	190. 6	291. 6	307. 6	Planing-mill prod'ts.
485. 3	402. 5	270. 9	550. 2	776. 5	868. 1	147. 2	296. 6	434. 3	483. 6	Furniture.
230. 2	222. 7	367. 2	383. 4	488. 9	462. 0	83. 0	105. 6	167. 1	155. 4	Leather, tanned.
128. 6	139. 6	501. 8	867. 5	1, 000. 1	925. 4	191. 4	389. 0	472. 6	443. 8	Boots and shoes.
605. 6	656. 8	301. 0	704. 9	958. 5	1, 255. 4	138. 0	327. 0	457. 4	536. 6	Rubber products.[4]
2, 178. 6	2, 427. 0	332. 1	667. 4	907. 3	971. 9	119. 0	221. 4	333. 6	366. 0	Paper, wood pulp.
405. 2	458. 8	901. 5	1, 999. 9	2, 222. 5	2, 482. 1	643. 7	1, 352. 6	1, 574. 6	1, 808. 1	Printing and publishing.
669. 3	657. 9	158. 1	390. 8	630. 9	547. 0	68. 6	200. 3	314. 0	275. 4	Chemicals, n. e. s.[5]
332. 6	409. 6	99. 3	221. 3	516. 9	378. 6	30. 1	52. 5	162. 9	100. 9	Coke.
161. 8	152. 2	153. 2	180. 4	183. 1	206. 8	45. 2	35. 4	55. 1	69. 0	Fertilizers.
358. 6	428. 1	220. 2	411. 2	450. 1	455. 5	143. 5	208. 9	259. 0	277. 0	Gas.
223. 7	239. 0	212. 1	217. 2	226. 4	295. 7	31. 2	22. 4	28. 9	51. 4	Cottonseed oil, etc.
114. 3	143. 1	145. 6	274. 3	404. 1	470. 7	57. 2	102. 9	155. 2	176. 8	Paints, varnishes.
391. 2	393. 8	396. 4	1, 727. 4	1, 793. 7	2, 376. 7	71. 1	345. 3	368. 6	487. 0	Petroleum refining.
74. 8	54. 7	127. 9	240. 2	276. 4	270. 3	39. 1	89. 8	102. 9	89. 9	Soap.
213. 1	240. 3	107. 1	137. 2	191. 5	193. 0	69. 3	84. 2	124. 7	126. 1	Marble, etc.
642. 8	871. 6	101. 8	203. 6	264. 1	300. 9	49. 8	101. 3	163. 3	186. 7	Cement.
480. 6	517. 2	135. 9	194. 3	333. 4	333. 7	93. 2	126. 1	230. 1	233. 7	Clay products.
44. 5	50. 1	36. 9	84. 2	114. 4	111. 1	24. 9	59. 0	80. 8	77. 2	Pottery.
240. 5	271. 6	123. 1	213. 5	309. 4	296. 0	77. 1	127. 4	196. 2	182. 3	Glass.
432. 9	326. 5	444. 0	234. 9	636. 9	665. 2	64. 9	29. 0	90. 2	92. 0	Copper.
42. 4	47. 2	171. 6	150. 6	227. 7	283. 0	17. 6	16. 5	20. 4	28. 2	Lead.
305. 8	361. 2	162. 2	214. 9	511. 5	519. 7	46. 7	84. 3	179. 7	182. 1	Brass, bronze, etc.
58. 3	62. 4	19. 6	45. 8	106. 9	127. 8	5. 2	19. 9	40. 3	42. 8	Aluminum manufactures.
18. 6	17. 5	175. 3	241. 7	223. 0	216. 2	98. 7	85. 3	76. 6	121. 8	Tobacco and snuff.
24. 9	24. 5	314. 9	806. 7	821. 2	874. 8	184. 4	354. 5	451. 7	543. 5	Cigars, cigarettes.
122. 0	115. 3	164. 1	163. 8	151. 3	169. 5	90. 6	76. 6	87. 8	95. 6	Agricultural implements.
480. 3	589. 4	335. 2	834. 0	1, 293. 0	1, 540. 0	180. 4	489. 9	744. 4	903. 3	Elec. machinery.
165. 1	224. 2	72. 1	199. 5	267. 0	313. 6	40. 7	87. 8	142. 5	167. 8	Engines, etc.
1, 399. 8	1, 633. 4	866. 5	1, 762. 2	2, 614. 9	2, 530. 2	508. 4	1, 039. 9	1, 588. 0	1, 553. 0	Foundries, etc.[6]
435. 5	509. 8	503. 2	1, 671. 4	3, 163. 3	3, 198. 1	210. 6	564. 3	1, 015. 9	1, 089. 9	Motor vehicles.
463. 1	662. 3	129. 6	408. 0	1, 013. 1	1, 523. 3	66. 0	194. 1	449. 0	660. 6	Motor vehic. bodies.
91. 2	114. 2	43. 4	102. 0	215. 4	65. 4	19. 8	46. 6	91. 1	23. 7	Locomotives.[7]
250. 1	243. 9	205. 3	340. 5	604. 4	390. 8	66. 7	128. 6	190. 7	124. 7	Cars, steam and electric railroad.[7]
280. 4	259. 5	66. 2	356. 2	177. 7	132. 4	36. 9	202. 4	105. 8	82. 9	Shipbuilding, steel.
744. 1	871. 8	514. 0	1, 180. 0	1, 433. 7	1, 248. 9	270. 2	707. 0	834. 3	715. 0	Repair shops.

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[5] Chemicals, n. e. s. include rayon for 1923 and prior censuses, but not for 1925.

[6] "Foundries and machine shops" includes "Machine tools" and "Textile machinery and parts"; for 1914 includes also "Iron and steel processed and welded" and "Steel barrels, drums, and tanks, portable," now reported as separate industries but of minor importance.

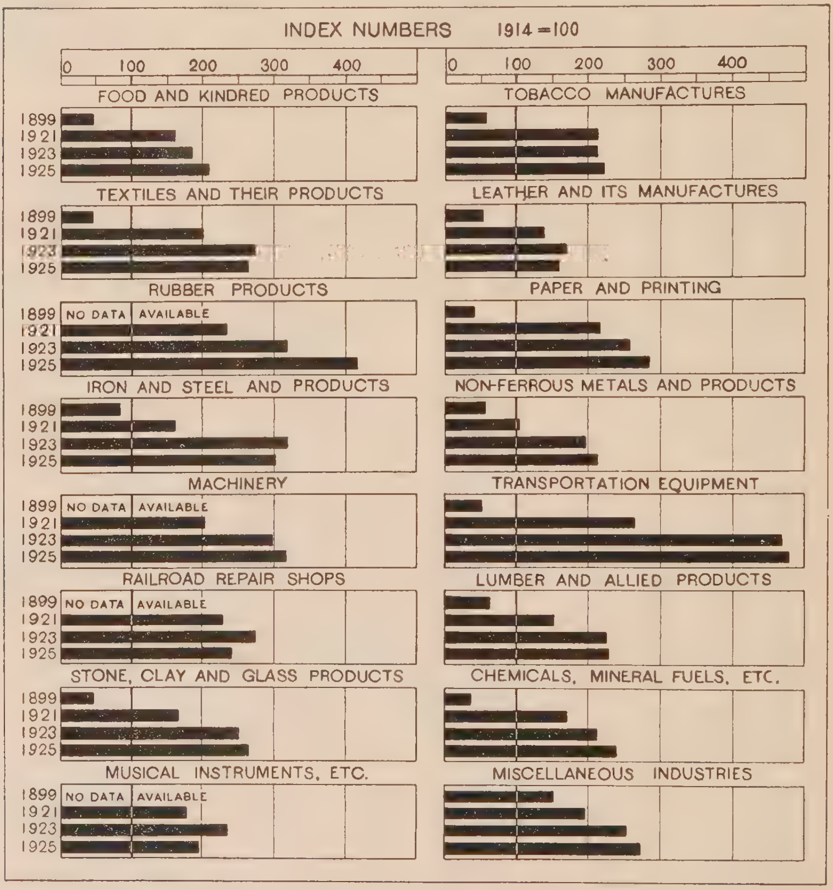
[7] Not made in railroad repair shops.

Source: Bureau of the Census.

railroad repair shop, tobacco manufactures, and leather manufactures groups. The number of horsepower of prime movers was largely increased for all groups of industries in 1925 as compared with 1914, being more than tripled for rubber factories and transportation equipment plants and more than doubled for machine shops and nonferrous metal plants. Increases in horsepower were also shown for all groups of industries except tobacco manufactures and nonferrous metals during the period from 1923 to 1925.

Chart VIII.—INDEXES OF MANUFACTURES, BY 16 GROUPS OF INDUSTRIES

NOTE.—Indexes are based on the total value of production for each group as shown by the census.



Principal Individual Manufacturing Industries.

The census classifies manufacturing establishments into about 350 industries. Each establishment is assigned to an industry according to the character of its major product. It often appears that an establishment makes a considerable quantity of goods falling outside its classification. It is necessary in some cases to change an establishment to some other industry at a later census on account of the change in the relative importance of the different kinds of merchandise made by it. For this reason statistics for a few of the industries are not closely comparable from one census to another. Table 17 shows data for the principal individual industries in 1914 and each of the last three censuses. In a good many cases costs of materials and value of products involved considerable duplication even within a single industry. It should also be borne in mind in comparing the rates of increase in values for the several industries that there have been considerable differences among them as regards the changes in the prices of materials used and the products made.

Some of the industries showing particularly large increases in value added by manufacture for 1925 as compared with 1923 were petroleum refining, printing and publishing, tobacco manufacturing, motor vehicles, motor vehicle bodies, electrical machinery, rubber products, silk manufactures, furniture, and bakery products, while marked decreases were shown by the cotton goods, woolen goods, clothing, pig iron, lumber, chemical, boots and shoes, coke, and railroad equipment industries.

DEVELOPMENTS IN SIMPLIFIED PRACTICE

Simplified practice as a practical method of reducing industrial waste is now widely recognized as one of the most significant economic and industrial developments. Approved by labor and carrying the indorsement of the consumer, simplified practice is being applied more and more widely to eliminate avoidable waste growing out of the production of needless variety in types and sizes of commonplace articles.

Since its establishment by Secretary Hoover in 1921, the Division of Simplified Practice has served as a neutral and friendly meeting ground for producers, distributers, consumers, and other groups concerned with waste elimination. It has cooperated in surveys of production and demand and in the analyses of such surveys. Upon these analyses, the groups have decided the extent to which excess variety could be eliminated with mutual benefit. This action, when applied on a collective basis, has become known as simplified practice. It has resulted in savings of millions of dollars annually. The manufacturer has benefitted through lower investments and equipment costs, through improved production, faster turnover, ability to handle more complete and compact lines, and reduced selling and handling expenses. The consumer has gained through better quality, improved service, and lower maintenance costs, and through the sharpening of competition. The worker has benefited through the stabilizing of operation, increased output, and increased earning power, as the production has been concentrated on fewer lines.

During the year 1926, group conferences held under the auspices of the Division of Simplified Practice, resulted in the adoption of simplified practice recommendations for 12 different commodities, 9 of which are shown in Table 18. Data are not available covering the reduction of variety for three of the commodities, viz, iron and steel scrap, carbon brushes and brush shunts, and white glazed tiles and unglazed ceramic mosaic.

Table 18.—Progress in Simplified Practice, 1926

Item	Reduction in varieties		Per cent reduction
	From	To	
Steel reinforcing spirals	7	3	57
Sterling silver flatware	190	62	67
Tinware, galvanized, and japanned ware	1,154	873	24
Shovels, spades, and scoops	5,136	2,178	57
Wrought iron and wrought steel pipe, valves, and fittings:			
Sizes of pipe	62	49	21
Sizes of valves and fittings	20,000	19,238	4
Paint and varnish brushes	480	138	71
Staple vitreous china plumbing fixtures	441	58	87
Veneer stock for wirebound boxes:			
Length	102	6	94
Width	65	5	92
Thickness	9	4	55
Metallic cartridges	348	256	26

Source: Bureau of Standards, Department of Commerce.

In addition to the above meetings, preliminary conferences were held with a number of groups considering the development of simplified practice programs for their industries. Among these were manufactures, distributers, and users of ball and roller bearings, fertilizer, casket hardware, steel sash, metal doors and trim, pyroxylin plastics, jewelry, knitted underwear containers, horseshoes, typewriter ribbons and carbon paper, millwork, wooden desks, trap-screw ferrules, radiators, punches and dies, tents and awnings, binder board, flashlights, razor blades, and porcelain insulators.

Because of the wide use of the materials covered, Simplified Practice Recommendation No. 57 covering wrought-iron and wrought-steel pipe valves and fittings and Simplified Practice Recommendation No. 52 for staple vitreous china plumbing fixtures are perhaps the outstanding simplifications developed during the past year.

Wrought-iron and wrought-steel pipe are integral parts of many manufacturing processes and form the arteries and veins of modern heating, plumbing, and other piping systems, domestic as well as industrial. As these processes and systems have grown in complexity there have crept into the open market a great variety of sizes of pipe, bringing in their wake a commensurate diversity in the dimensions of valves and other fittings. The consumers have had to sustain, with the manufacturers and distributers, the burden of cost caused by this excessive variety.

In 1924 the Manufacturers' Standardization Society of the valve and fittings industry inaugurated a survey of current practice, the ultimate purpose of which has been to discover which sizes of pipe could be dropped from production with consequent advantage to all concerned. A study of the situation brought out the fact that the mention of a "special" size in the catalogue of an individual manufacturer inspired other manufacturers to adopt similar sizes, until finally the total list of advertised sizes assumed unwieldy proportions. The subcommittee discovered that the turnover of some of the sizes was exceedingly small and that the requirements which prompted the specification of the odd varieties could be met satisfactorily with those sizes for which there was a recorded major demand. Therefore the immediate purpose of the survey has been the lightening of the burden that is at present sustained by all interests.

The survey of existing practice was completed in December, 1925, and a general conference was convened in Washington, on May 28, 1926, to discuss the proposed list of pipe sizes. The combined efforts of this general conference resulted in a reduction from a total of 62 sizes to 49 sizes of pipe, and an elimination of 762 sizes of valves and fittings.

When consideration is given to the equipment that is necessary to make these seldom called for items, the causes for heavy overhead production costs for the manufacturers, the excessive storage and inventory expenses for the distributers, and the final cost to the ultimate consumer become obvious. One concern has stated that their sale of the 4½, 7, and 9 inch sizes alone represents only one-third of the investment that is required to produce them, so heavily does the fabrication and stocking of the odd sizes drain their resources. If this condition characterizes the entire industry, it is plain that potential economies rest within this program.

In January, 1925, the Division of Simplified Practice was requested by a group of manufacturers of vitreous china plumbing fixtures to assist in an effort to secure a more uniform grading of this type of ware. Several preliminary conferences were held in Washington and elsewhere during 1925. At a general conference of manufacturers, distributers, and consumers in September, 1926, a simplified practice recommendation was adopted which resulted in the establishment of standards for staple vitreous china plumbing fixtures. This recommendation included grading rules, standard nomenclature, definitions, marking and labeling, and dimensional standards. The varieties were reduced from 441 to 58 items, to become effective October 1, 1926, subject to revision at the end of one year from the effective date.

General conferences, attended by representatives of manufacturers, distributers, and users, held under the auspices of the Division of Simplified Practice, have resulted in adoption of over 60 simplifications since 1921 which have been accepted by 250 trade associations and 5,000 individual firms or organizations. The division has also cooperated in surveys of production and demand in the analyses of such surveys. At the present time over 50 industries are conducting surveys to determine the extent to which excess variety could be eliminated with benefit to all concerned. These surveys will be studied by a simplified practice committee appointed by the industry concerned and a tentative recommendation will be formulated for presentation at a subsequent general conference of all interests. After formal acceptance by a very substantial majority of interested groups and individuals, the recommendations are published by the department as one of the series of simplified practice recommendations, subject to periodic revision by a similar general conference or by action of a standing joint committee representing the industry.

The appointment of simplified practice committees in 1925, by a number of the State manufacturers' associations, undoubtedly stimulated considerable interest in the simplification movement. The circularizing of their memberships for recommendations as to items in greatest need of simplification has resulted in a large number of requests for information and many items were suggested as fertile fields for the application of simplified practice.

The California Manufacturers' Association and the Associated Industries of Massachusetts are particularly active in supporting the simplification movement. Also the Manufacturers' Associations of Washington, Colorado, Georgia, Illinois, Virginia, Iowa, Florida, Nebraska, South Dakota, and other State associations are giving attention to simplified practice as a waste-elimination measure. The National Association of Purchasing Agents and a number of the State and city associations have been very active in bringing simplified practice to the attention of their members.

During the year a score of visitors from England, Japan, Ireland, Wales, Germany, Czechoslovakia, and Australia, made careful inquiry into the division's work; while engineering bodies, educational leaders, and trade associations in foreign lands asked for publications of the division and for information about its operation. Considerable attention has been given to simplified practice in foreign publications, notably in Great Britain, Germany, France, and Italy.

Significant in the year's operation was the attitude of a number of industries toward the revision of simplified practice recommendations. As a part of the division's procedure, every general conference which adopts such a recommendation is asked to provide for a standing committee, representing every factor of the industry, which shall act as a board of review. The function of the committee is to receive complaints and suggestions, and to make recommendations, based on changing demands and changing trends in the industry, for revisions which they deem will make the simplified practice recommendations better serve the purposes for which they were set up. During the year 25 of the simplified practice recommendations were brought up for revision or reaffirmation.

Perhaps the most significant and outstanding development during the year was the factual survey to determine the degree of adherence to the simplified practice recommendations. It was found that in 11 different lines, the average adherence to the simplified practice recommendations was 79 per cent. In other words, an average of practically four-fifths of last year's output in these lines conformed to the sizes, dimensions, etc., specified in the simplification programs adopted through joint conference of representative manufacturers, distributers, and consumers concerned. This degree of support for simplified practice demonstrates that the companies cooperating in simplification have found that it pays.

According to leaders in the industries concerned, a total estimated annual saving of over $300,000,000 has resulted through the adoption of simplified practice recommendations for paving brick, sheet steel, reinforcing bars, warehouse forms, range boilers, invoice forms, and lumber.

PRODUCTION AND MARKETING OF RAW MATERIALS

MINERAL PRODUCTION

Mineral production made a new peak in 1926, according to the index number of the Department of Commerce, which stood at 142, as compared with 100 for the 1919 average. This represented an increase of 7 per cent over the 1925 output and of about 5 per cent over 1923, the best previous year. Gold and silver alone of the minerals had a smaller output than in 1925, while petroleum output remained practically stationary. The largest gain over 1925 was made by anthracite coal, with a rise of 35 per cent. The 1925 output, however, was curtailed by the strike in the anthracite mines in the latter part of the year, which continued into February of 1926. All the other increases over 1925 were less than 11 per cent each. As compared with the previous high year, 1923, anthracite coal, iron ore (shipments), and silver alone showed declines in output.

New production records since the war were made for the year 1926 in the bituminous coal, copper, lead, zinc, and petroleum industries, while iron-ore shipments were only slightly below the high record of 1923. Petroleum output was more than double the 1919 production, while lead output was 76 per cent higher. Copper production has increased in each of the past five years and in 1926 was more than five times as large as in the abnormally low year 1921.

Table 19.—Indexes of Mineral Production

[Monthly average 1919=100]

Product	Year							December		Maximum month, 1926	Minimum month, 1926
	1920	1921	1922	1923	1924	1925	1926	1925	1926		
Total	**116**	**93**	**98**	**136**	**126**	**133**	**142**	**123**	**150**	**165**	**113**
Petroleum	117	125	146	192	187	202	203	195	229	229	173
Bituminous coal	122	89	87	118	104	112	124	136	149	154	101
Anthracite	102	103	60	108	102	72	97	3	103	122	2
Iron ore (shipments) [1]	124	47	90	125	90	115	124	------	1	272	0
Copper	61	27	77	115	131	139	144	138	143	150	135
Lead	112	94	116	134	155	169	176	184	191	191	166
Zinc	101	47	81	117	117	128	138	138	146	149	126
Gold	82	81	88	85	92	89	87	96	90	113	59
Silver	100	95	98	115	113	110	108	104	119	119	99

[1] Owing to close of navigation, shipments cease during winter months.

Source: Department of Commerce, Survey of Current Business.

Monthly figures of mineral production were lower in the first two months of 1926 than in the corresponding months of 1925, owing largely to the shutdown in the anthracite mines. Thereafter, however, mineral production exceeded that for the corresponding month of 1925, except in May. The increase in the last four months of the year was particularly marked. As shown in Table 20 this was owing largely to the low output of anthracite coal in the latter part of 1925, but was also ascribable in part to high production of petroleum, anthracite, and copper during the last quarter of 1926. Iron ore shipments are of comparatively little account at that period owing to the closing of navigation on the Great Lakes in December. Bituminous coal output in each quarter of 1926 was greater than in the corresponding quarters of the two previous years, while copper output for every quarter of 1926 was greater than in any quarter of either 1924 or 1925 except the first quarter of 1925. Petroleum production, after falling behind that of 1925 during most of 1926, made a new high mark in the fourth quarter. Total mineral output was lower in the first quarter of the year than in either 1924 or 1925, but thereafter it exceeded the figures for the two previous years, and in the final quarter was more than 20 per cent greater than in the corresponding period of either of those years.

Table 20.—Indexes of Quarterly Production of Principal Minerals

[Quarterly average 1919=100]

Quarter	Total, 9 products			Petroleum			Bituminous coal			Anthracite			Copper		
	1924	1925	1926	1924	1925	1926	1924	1925	1926	1924	1925	1926	1924	1925	1926
January-March	125	126	122	181	187	185	121	110	126	107	98	50	130	144	142
April-June	120	133	134	191	210	195	81	91	104	101	106	114	129	139	144
July-September	130	143	154	193	212	208	96	113	119	102	79	114	129	135	142
October-December	129	130	158	183	199	223	117	135	148	99	2	107	135	137	147

Source: Department of Commerce, Survey of Current Business.

FOREST PRODUCTS

The production of forest products follows closely the trend of lumber production, as lumber constitutes a large proportion of the total forest output. The total forestry production index declined from 1925, was also less than in 1923, and only exceeded 1924 very slightly. Lumber and pulpwood output decreased from 1925, while naval stores and wood used in distilling for the production of acetate of lime and methanol increased in output over 1925. For lumber, naval stores, and distilled wood the 1926 output was third best since the war, while pulpwood production in 1926 was less than in four previous years. The total forestry index was below the 1925 figures in each month except February and March. The peak 1926 output was in May, which was earlier than usual.

All the species of lumber included in the index of forestry production declined from 1925 to 1926, except the group comprising western and sugar pine and white fir. In the case of hemlock, the output was the lowest since the end of the war, while for maple, birch, and beech the 1926 output was lower than in any postwar year except 1922. Redwood output was the lowest since 1921, yellow pine the lowest since 1923, while Douglas-fir production was exceeded only in 1925, and western and sugar pine and white fir equaled the record production of 1925.

Table 21.—Indexes of Output of Forest Products

[Monthly average 1919=100]

Commodity or kind	Year							December		Maximum month, 1926	Minimum month, 1926
	1920	1921	1922	1923	1924	1925	1926	1925	1926		
Total	**102**	**86**	**110**	**121**	**118**	**126**	**119**	**118**	**106**	**131**	**106**
Lumber	100	85	110	122	117	127	119	116	102	132	102
Pulpwood	106	74	99	101	114	109	100	120	97	132	62
Rosin and turpentine	132	132	147	176	168	162	166	151	209	263	31
Distilled wood	110	46	90	117	98	96	103	112	102	115	88
KINDS OF LUMBER											
Yellow pine	85	93	112	114	115	121	114	113	112	121	110
Western and sugar pine and white fir	130	72	117	157	148	169	169	117	107	221	82
Douglas fir	118	81	119	138	133	148	141	143	114	166	114
Redwood	116	116	143	154	141	127	124	137	90	146	90
Hemlock	105	56	74	82	59	67	55	84	43	73	43
Maple, birch, and beech	101	78	75	100	88	102	77	70	40	141	29

Source: Department of Commerce, Survey of Current Business.

ANIMAL PRODUCTS

While the marketings of livestock and animal products in 1926, according to the Department of Commerce index, were slightly higher than in 1925, they were exceeded by the marketings in 1923 and 1924. Hog marketings declined 9 per cent from 1925 to the lowest point since the end of the war, while cattle and calves were 1 per cent lower than in 1925. All other animals and their products were marketed in larger quantities than in 1925, except eggs, which reached about the same volume in both years. Poultry, fish, and milk marketings all made new high records in 1926; egg marketings were exceeded in 1922 and 1923; cattle and calves in 1919 and 1925; and sheep in 1919 and 1921. Four of the eight products had lower marketings in 1926 than in 1919, while poultry had the largest increase during the period, which amounted to 52 per cent.

The monthly index of animal marketings was lower than in the corresponding months of 1925, during the first two months of 1926, and also in April, but for the other months the 1926 marketings were higher. By reference to Table 23 it will be noticed that hog marketings in each quarter of 1926 were the lowest in four or five years, except that the marketings for the third quarter were higher than in the corresponding 1925 period. Cattle marketings in the first half of the year were unusually large while in the last half they were lower than for several years. Sheep marketings were large throughout the year, reaching record volume for the postwar period in the third quarter.

Table 22.—Indexes of Marketing of Animal Products

[Monthly average 1919=100]

Commodity	Year							December		Maximum month, 1926	Minimum month, 1926
	1920	1921	1922	1923	1924	1925	1926	1925	1926		
Total	**95**	**98**	**106**	**117**	**117**	**113**	**114**	**123**	**126**	**126**	**95**
Wool	49	67	89	68	94	62	79	31	56	253	27
Cattle and calves	90	80	94	94	96	98	97	100	90	130	76
Hogs	95	92	98	123	124	98	89	117	105	115	75
Sheep	87	89	82	81	83	81	88	71	75	145	66
Eggs	86	104	114	117	105	109	109	53	63	190	49
Poultry	97	109	119	144	151	136	152	345	388	388	71
Fish	90	78	94	92	97	115	127	54	77	185	77
Milk	109	114	119	132	133	138	142	136	141	152	124

Source: Department of Commerce, Survey of Current Business.

Table 23.—Indexes of Quarterly Marketing of Animal Products

[Quarterly average 1919=100]

Quarter	Total, 8 animal products						Cattle and calves					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January-March	94	96	107	110	109	105	71	76	78	80	85	85
April-June	102	113	119	120	116	116	75	83	85	85	86	89
July-September	94	102	115	111	108	112	83	102	104	102	104	101
October-December	101	114	124	125	119	123	92	117	110	117	116	113
	Hogs						Sheep					
January-March	108	101	131	147	127	100	74	69	65	66	64	70
April-June	90	94	116	116	90	83	80	68	69	62	71	76
July-September	72	81	103	94	72	76	101	86	90	99	94	107
October-December	97	117	143	138	104	96	99	105	100	100	96	99

Source: Department of Commerce, Survey of Current Business.

CROP PRODUCTION AND MARKETINGS

Crop production according to the index compiled by the Department of Agriculture reached a greater volume in 1926 than in any year since 1920. (Table 1.) Production, which declined sharply in 1921 and increased considerably the following year, has shown a gradual increase since 1923. Of the more important crops, wheat, rice, cotton, potatoes (both white and sweet), sugar (both cane and beet), apples, peaches, and pears were harvested in greater quantity in 1926. Declines from 1925 occurred in the harvests of corn, oats, barley, rye, buckwheat, flaxseed, hay, and tobacco. The total acreage of crops increased less than 1 per cent over 1925. The farm value of crops, taken as of December 1 of each year, which had declined about 5 per cent from 1924 to 1925, made a further decline of about 11 per cent from 1925 to 1926. About half of the 1926 decrease is accounted for by the decline in the price of cotton and a large part of the remainder by the lower price and smaller output of corn.

Crop marketings increased 5 per cent above those of 1925 and were only 1 per cent below the high mark made in 1924. Except for a slight decline in vegetables, all groups had larger marketings than in 1925, the fruit group showing an increase of 19 per cent. Fruit shipments were much larger than in any other postwar year. Cotton products were also marketed in record volume, while vegetable marketings were only slightly below their maximum. Grain shipments were, however, 23 per cent smaller than in the record year 1922.

Monthly crop marketings in 1926 exceeded those for the corresponding months of 1925 except in the first three months of the year and in September and December. All groups fell below 1925 for each of the first three months of the year, except fruits, which overtook the 1925 marketings in February and thereafter were well above the 1925 figures except in April, June, and September. The October fruit marketings reached an exceptionally high seasonal peak. Grain marketings exceeded those of 1925 in April and with the exception of May continued higher through August, while the large winter wheat crop was being harvested. While the smaller spring wheat and coarse grain crops were arriving at the markets, receipts were less than in the previous year, except in October. Vegetable marketings were smaller than in the corresponding month of 1925 until June, but thereafter, with the advent of the new crops to market, they exceeded the 1925 marketings except in August and September. Cotton marketings in April, May, and June were above 1925, but for the third quarter of the year, marketings were smaller than a year earlier. The full influence of the large 1926 cotton crop was not felt in the marketings until the last quarter of the year, owing to the lateness of the season, but in October, November, and December large increases were shown over the 1925 receipts.

Table 24.—Indexes of Marketing of Crops

Note.—Wide range between maximum and minimum is largely due to seasonal variations.

[Monthly average 1919=100]

Period	All crops	Grains	Vegetables [1]	Fruits	Cotton products
1920	94	95	102	118	89
1921	112	130	121	120	98
1922	113	136	140	134	91
1923	102	109	133	154	87
1924	118	133	140	154	105
1925	111	101	140	141	126
1926	117	105	138	168	132
Per cent change, 1926 over 1925	+5.4	+4.0	−1.4	+19.1	+4.8
1924					
January–March	83	103	137	92	52
April–June	57	62	132	122	30
July–September	132	187	136	192	78
October–December	200	181	153	208	261
1925					
January	119	121	130	83	128
February	81	82	129	69	79
March	75	80	137	71	70
April	49	43	134	86	42
May	55	61	142	118	28
June	55	79	147	83	12
July	69	104	113	162	14
August	106	138	105	152	75
September	191	156	199	332	234
October	196	106	234	274	310
November	174	110	121	175	277
December	164	137	86	83	239
1926					
January	109	105	111	77	114
February	79	82	97	75	74
March	70	68	133	87	65
April	57	56	102	84	52
May	57	56	124	128	43
June	63	87	175	70	20
July	103	175	138	224	12
August	114	169	102	240	48
September	172	133	180	327	213
October	232	135	250	399	346
November	199	108	137	202	343
December	149	90	104	104	251

[1] Includes white and sweet potatoes, tomatoes, onions, cabbage, and celery.

Source: Department of Commerce, Survey of Current Business.

WHOLESALE AND RETAIL TRADE

WHOLESALE TRADE

Because of the multiplicity of merchandise handled by wholesale and retail dealers practically all existing sales statistics are expressed in dollars and are consequently considerably affected by price movements. The advance in prices during the war and the period of postwar inflation and the decline in 1920 and 1921 were so great that trade statistics throughout that entire period can only be interpreted in the light of price indexes. Indexes of price changes are shown in the next section.

The value of sales in six principal lines of wholesale trade, as reported by the Federal Reserve Board, is shown in Chart IX and Table 25. Wholesale trade has shown comparatively little expansion during recent years on account of the fact that there is an increasing tendency for manufacturers to sell through their own retail outlets and for large scale retailers, such as mail-order houses, department stores, and chain stores, to either purchase directly from manufacturers or in some cases to engage in manufacturing. Consequently, changes in wholesale trade do not reflect very accurately the changes in total volume of commodities distributed, except for short periods of time.

Sales of wholesale dealers in 1926 were about equal in value to those in 1925, but there was probably a considerable increase in the volume of distribution as the average level of wholesale prices was 5 per cent lower in 1926. Price declines which continued throughout most of the year probably account for the fact that the value of sales in the fourth quarter were substantially smaller than in the corresponding quarter of 1925, whereas trade had shown moderate increases in each of the first three quarters of the year. Wholesale trade in all the reporting lines except groceries is quite seasonal, so that monthly or quarterly figures, being adjusted for seasonal variations, are chiefly significant for the changes they show in comparison with corresponding periods of previous years.

Chart IX.—WHOLESALE TRADE AND DEPARTMENT STORES—INDEXES OF VALUE OF SALES

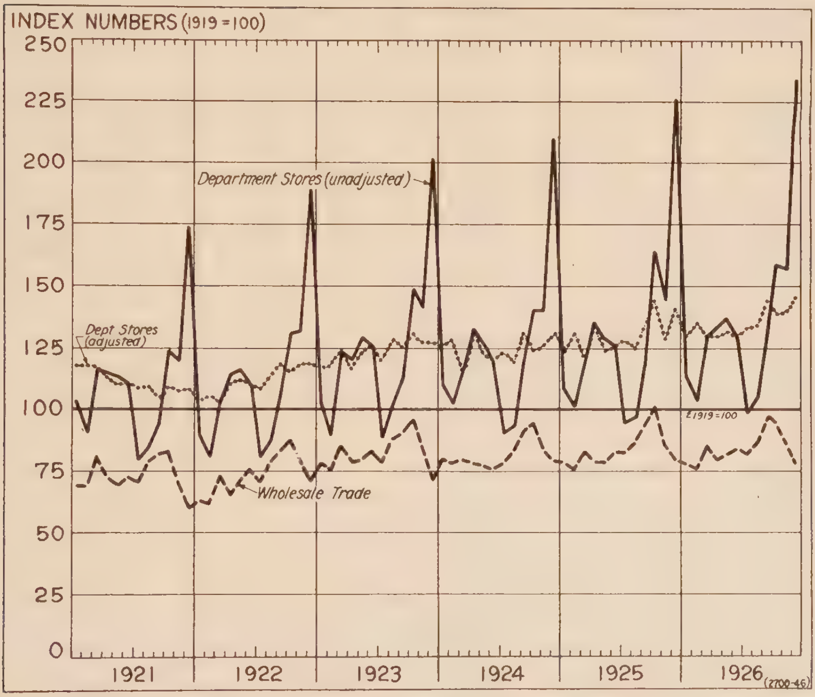


Table 25.—Indexes of Value of Wholesale Sales

NOTE.—General wholesale price index, 1913=100. If 1919 were taken as 100, the index would be a little less than one-half as high.

[Monthly average 1919=100]

Period	Total, 6 branches	Groceries	Meats	Dry goods	Shoes	Hardware	Drugs	General wholesale price index
1920	112	113	84	115	88	116	112	226
1921	73	77	55	83	68	82	97	147
1922	74	76	56	83	65	86	100	149
1923	83	83	65	95	68	104	111	154
1924	82	84	67	90	58	99	113	150
1925	84	84	75	92	58	103	114	159
1926	84	83	79	87	63	102	118	151
1924								
January-March	79	79	64	95	54	95	114	151
April-June	77	81	63	73	59	103	110	147
July-September	85	86	69	99	56	97	111	149
October-December	86	91	71	90	60	102	115	154
1925								
January	79	80	71	82	43	89	116	160
February	76	73	69	88	46	90	109	161
March	83	79	73	96	63	107	121	161
April	79	75	68	85	65	107	115	156
May	79	79	75	77	54	101	106	155
June	83	84	79	82	54	105	110	157
July	83	85	79	85	47	99	111	160
August	87	83	78	106	65	98	108	160
September	94	92	82	112	72	109	120	160
October	101	99	87	118	77	122	134	158
November	86	90	72	92	59	103	110	158
December	80	83	72	75	54	101	111	156
1926								
January	78	77	79	79	43	86	111	156
February	76	71	75	85	50	87	110	155
March	85	81	75	93	73	106	133	152
April	80	79	76	77	59	103	123	151
May	82	80	81	78	60	107	111	152
June	84	86	82	77	59	105	116	152
July	82	84	77	78	52	99	113	151
August	88	82	81	102	73	99	115	149
September	97	92	86	114	84	112	124	151
October	94	91	85	102	76	114	133	150
November	86	87	76	91	67	104	117	148
December	78	80	73	71	60	99	110	147

Source: Federal Reserve Board.

For the six lines combined the index was higher than in 1925 during the months of March, April, May, June, August, and September, but was lower in all of the other months except November. For the year as a whole sales of shoes, meat, and drugs increased while sales of drygoods, groceries, and hardware were somewhat smaller in value. Shoe sales were larger in nearly every month of the year and drug sales evidenced a consistent growth. The declines in value of sales of drygoods and groceries, on the other hand, were probably largely a result of lower prices.

Changes in wholesale trade in several Federal reserve districts indicate that there have been some variations in trend between different sections of the country. (Table 26.)

Sales of groceries, for example, were smaller in 1926 than in 1925 in the Boston, New York, Cleveland, Richmond, and Kansas City districts, but were slightly larger in other sections. Drygoods were smaller in all reporting districts except Atlanta, while shoe sales showed increases for all reporting districts except Minneapolis. Hardware sales decreased in all sections of the country except the Cleveland, Richmond, Dallas, and San Francisco districts.

Table 26.—Indexes of Value of Wholesale Sales, by Federal Reserve Districts

[1919=100]

Article and year	New York	Philadelphia	Cleveland	Richmond	Atlanta	Chicago	Minneapolis	Kansas City	Dallas	San Francisco
HARDWARE										
1923	100	113	111	100	84	103	148	81	101	113
1924	96	115	102	94	79	100	143	77	102	104
1925	98	115	104	88	96	101	152	83	110	106
1926	96	114	105	91	94	99	144	79	120	106
SHOES										
1923	58	--------	65	71	61	59	69	--------	--------	80
1924	56	--------	58	58	51	47	56	--------	--------	66
1925	58	--------	58	62	52	37	70	--------	--------	70
1926	59	--------	63	70	55	43	57	--------	--------	91
GROCERIES										
1923	80	88	79	83	85	74	85	99	79	101
1924	78	87	81	84	90	77	85	110	83	97
1925	78	86	79	89	90	72	86	109	85	97
1926	76	93	77	75	90	74	87	106	86	97
DRUGS										
1923	118	--------	126	100	--------	100	--------	98	94	132
1924	126	--------	119	103	--------	97	--------	96	104	144
1925	118	--------	124	106	--------	102	--------	103	104	147
1926	129	--------	132	106	--------	101	--------	98	106	153
DRY GOODS										
1923	98	--------	99	87	79	94	--------	99	98	109
1924	95	--------	80	76	76	89	--------	107	102	101
1925	105	--------	77	69	80	87	--------	120	90	93
1926	98	--------	74	67	82	79	--------	120	86	90

Source: Federal Reserve Board.

Inventories carried by reporting wholesale firms averaged smaller throughout the year than in 1925. Stocks of dry goods and shoes were consistently smaller throughout most of the year while inventories of drugs were larger in each month than in the corresponding month of 1925. Stocks of meat and hardware showed some tendency to accumulate during the year, whereas grocery stocks were reduced in volume.

RETAIL TRADE

Retail trade in the United States is handled by a number of different types of stores. It is extremely difficult to study the general trend of retail trade because it is only possible to secure statistics for mail-order houses, department stores, and chain stores, all of which are large scale organizations. No statistics are collected for the small retail stores which do a very large percentage of the total business. It is entirely possible that at certain times the trade of the reporting retail organizations may show increases because of the opening of new stores and new departments, whereas the total retail business of the country may actually be declining.

Mail-Order Houses.

Mail-order houses make most of their sales by sending out catalogues and receiving orders by mail. They naturally cater largely to customers in agricultural districts who otherwise are unable to buy from large scale retailers carrying a varied stock of merchandise. Consequently, their sales are generally considered to be a barometer of the purchasing power of the agricultural communities. Certain of the mail-order houses have, however, in recent years opened stores in the more important cities so that a considerable part of their trade is now urban.

Sales of mail-order houses have shown a rather steady expansion during each of the past five years and in 1926 were 4.2 per cent greater than in 1925. Sales were larger in each month of 1926, except October and December, than in the corresponding month of the previous year. (Table 27.) The decline in business in the last quarter of the year was largely caused by the reduced buying power of agricultural sections, which resulted from the lower prices of cotton, grain, and other important crops.

After adjustment of the data to allow for the large seasonal variations, it appears that sales were remarkably steady during the first five months of the year; showed a large expansion in June; continued in large volume through July, August, and September; were considerably curtailed in October; and advanced to the high point of the year in December.

Table 27.—Indexes of Value of Sales of Four Mail-Order Houses [1]

NOTE.—Index for value of sales (unadjusted) in 1920 was 103. Sales are affected both by price changes and seasonal movements.

[Monthly average 1919=100]

Month	Unadjusted						Adjusted for seasonal variations					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Year	**72**	**78**	**99**	**105**	**118**	**123**	------	------	------	------	------	------
January	69	65	89	98	108	116	71	67	91	100	110	118
February	65	59	84	96	105	111	72	66	92	101	116	122
March	95	83	112	105	119	130	82	72	97	91	103	111
April	77	77	103	114	117	120	76	75	100	111	114	118
May	60	70	98	90	95	105	67	78	109	100	106	117
June	62	69	86	89	102	113	73	81	101	104	120	133
July	49	58	74	69	87	98	66	79	100	93	117	131
August	56	57	73	74	89	98	75	76	97	98	118	130
September	73	75	92	106	114	120	77	80	97	112	120	127
October	89	109	134	141	170	150	68	84	104	109	131	116
November	83	110	122	131	144	153	67	89	98	105	116	122
December	80	108	118	148	168	165	67	90	98	123	140	138

[1] Sears, Roebuck & Co., Montgomery Ward & Co., Larkin Co., and National Cloak & Suit Co.

Source: Federal Reserve Board.

Department Stores.

Sales in department stores located in more than 100 leading cities throughout the United States exceeded all previous records in 1926, averaging 3.4 per cent higher in value than in 1925.

Table 28.—Indexes of Value of Sales of 359 Department Stores

NOTE.—Sales are affected by price movements and are also highly seasonal.

[Monthly average 1919=100]

Month	Unadjusted						Adjusted for seasonal variations					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Year	111	112	124	125	131	136						
January	103	90	102	110	108	114	118	103	116	126	124	130
February	91	81	90	102	101	104	118	105	117	128	131	135
March	117	102	124	115	121	130	117	102	124	115	121	130
April	115	114	120	133	136	133	112	111	117	131	133	130
May	113	116	129	127	128	137	109	112	124	123	124	132
June	111	110	126	120	126	130	111	110	126	120	126	130
July	80	80	89	91	95	99	108	108	120	123	128	133
August	85	88	101	93	98	105	109	113	128	118	125	134
September	95	107	113	119	121	131	104	118	125	131	134	144
October	124	131	149	141	165	158	109	115	131	124	145	139
November	120	132	142	141	145	157	107	117	127	126	129	139
December	174	189	202	210	226	234	108	118	127	131	141	146

Source: Federal Reserve Board.

During the first four months of the year weather conditions in the northern and eastern sections of the country were rather unsatisfactory for retail trade and sales were smaller than is usual at that season. From May to September, on the other hand, trade was in unusually large volume, averaging about 6 per cent more than in the corresponding period of 1925. Sales in October and November showed less than their customary seasonal expansion, but in December reached the largest volume of any single month on record in consequence of the large holiday business.

Analysis of department-store sales by districts shows that trade increased during 1926 in all districts except Minneapolis. (Table 29.) Increases range from about 1 per cent in the Cleveland district to about 7 per cent in the Chicago district, while sales in the Minneapolis district were over 7 per cent smaller than in 1925.

Merchandise stocks of department stores showed a moderate decline in value during 1926. In the first three months of 1926 inventories were at an unusually high level, but they commenced to decline in April and were reduced by the end of the summer to the lowest point in two years. After a considerable expansion in the fall months, there was another moderate reduction in stocks during December and at the end of the year they were about 1 per cent smaller than a year earlier.

Table 29.—Indexes of Value of Sales of Department Stores by Federal Reserve Districts

NOTE.—Averages are not adjusted for seasonal variations. December is always the maximum month. Comparisons are affected by changes in level of prices.

[Monthly average 1919=100]

Period	Total (359 stores)	Boston	New York	Philadelphia	Cleveland	Richmond	Atlanta	Chicago	Minneapolis [1]	Dallas [1]	San Francisco
1920	120	116	120	118	127	113	119	124	112	120	121
1921	111	114	115	112	112	107	101	110	103	99	116
1922	112	119	118	114	112	104	94	115	99	92	122
1923	124	127	127	127	130	111	104	133	105	99	139
1924	125	126	132	126	128	117	101	133	104	102	143
1925	131	128	138	129	131	124	106	142	107	109	149
1926	136	134	143	133	132	129	110	153	99	113	158
1925											
January-March	110	105	117	110	113	100	89	115	90	96	128
April-June	130	133	135	127	134	124	104	142	109	105	143
July-September	105	99	104	94	105	94	82	121	92	87	134
October-December	179	175	196	185	171	179	150	191	136	146	193
1926											
January-March	116	114	121	118	114	108	96	128	85	100	135
April-June	133	134	138	131	132	126	111	151	101	110	148
July-September	112	104	111	97	110	100	85	133	89	95	144
October-December	183	182	200	185	174	181	148	200	123	148	205
DECEMBER											
1921	174	188	193	179	166	179	155	165	140	149	181
1922	189	200	202	191	190	188	162	192	157	149	206
1923	202	210	215	203	204	195	168	210	156	158	236
1924	210	215	226	213	207	213	173	217	162	171	238
1925	226	225	243	222	218	230	190	245	167	183	253
1926	234	235	254	228	223	235	189	251	157	185	278

[1] Base figures for 1919 estimated.

Source: Federal Reserve Board.

Chain Stores.

The great expansion in trade of chain stores during recent years has been owing in considerable part to the increase in the number of stores operated by the reporting chains. (Table 30.) The chains reporting to the Federal Reserve Board increased the number of stores which they operated from about 31,000 in 1925 to about 34,000 in 1926, and their total sales expanded from $1,580,000,000 to $1,825,000,000, an increase of over 15 per cent. This huge expansion in chain-store business indicates the growing popularity of this type of retail distribution rather than a real increase in the aggregate volume of retail trade itself. The sales of each of the seven reporting classes of chain stores increased during the past year; sales of grocery chains were 20 per cent larger than in 1925 and drug chains showed an increase of 16 per cent, while the volume of business of 5 and 10 cent variety stores was 9 per cent greater. There was an exceptionally large increase in the volume of business of candy chains, amounting to 38 per cent, but this was probably primarily owing to the great increase during the past two years in the number of stores operating.

Table 30.—Indexes of Value of Sales of Chain Stores

NOTE.—The business is affected by seasonal causes. December in each year for each group is nearly always the maximum month. Comparisons are affected by changes in price levels.

[Monthly average 1919=100]

Period	Grocery (27 chains)	5-and-10 (5 chains)	Drug (9 chains)	Cigar (3 chains)	Shoe (6 chains)	Music (4 chains)	Candy (5 chains)
1920	145	120	121	133	120	109	138
1921	130	124	123	132	113	86	142
1922	151	140	127	129	114	101	147
1923	188	165	144	135	123	113	176
1924	214	185	151	138	133	101	190
1925	264	209	169	142	139	122	199
1926	317	229	196	154	148	128	275
1925							
January	250	151	155	122	107	92	162
February	233	156	146	119	100	99	175
March	252	177	160	131	127	105	188
April	258	195	159	134	177	107	210
May	254	191	163	143	149	96	195
June	254	187	167	134	152	99	184
July	259	183	166	136	122	104	181
August	243	195	171	142	120	128	202
September	245	191	169	142	129	136	202
October	318	237	179	151	164	141	215
November	272	220	167	136	136	139	195
December	332	427	225	212	188	214	280
1926							
January	286	166	178	127	108	101	167
February	287	170	172	127	97	103	173
March	302	199	194	142	143	112	206
April	329	202	191	150	166	111	226
May	322	214	188	160	174	109	220
June	309	204	184	152	153	118	204
July	317	206	195	155	145	108	210
August	296	204	193	148	122	121	194
September	307	211	192	153	142	137	218
October	334	257	206	162	158	151	227
November	347	247	198	150	150	146	232
December	373	466	261	222	215	223	303
AVERAGE NUMBER OF STORES							
1923	15,362	1,819	492	2,737	343	59	[1] 120
1924	18,351	1,958	525	2,776	407	55	[1] 134
1925	22,244	2,084	553	3,015	488	56	219
1926	25,423	2,268	644	3,328	551	60	256
December, 1924	19,707	2,033	527	2,841	452	54	179
December, 1925	24,190	2,136	615	3,259	521	60	234
December, 1926	26,357	2,301	733	3,434	576	61	259

[1] Four chains prior to January, 1923. The average number of stores for 1923 and 1924 is also for 4 chains only. The index numbers, however, are fairly comparable for the entire period, as allowance has been made for the extra chain in the base beginning with 1923.

Source: Federal Reserve Board.

MISCELLANEOUS TRADE INDICATORS

The volume of advertising and the value of postwar money orders issued indicate in a rather general way the trend of business in the United States. (Table 31.) Magazine advertising occupied about 8 per cent and newspaper advertising about 3 per cent greater space in 1926 than in the preceding year. Both newspaper and magazine advertising have shown upward trends since 1921, and the volume of newspaper advertising in 1926 was greater than in any earlier year. The space occupied by magazine advertising during the past year was 54 per cent greater than in 1921, but was a little less than in the peak year 1920. Magazine advertising reached a larger volume in each quarter of 1926, than in the corresponding period of 1925, and this was also true of newspaper advertising except for the last quarter.

The value of domestic post-office money orders has shown an increase in each of the past five years and in 1926 was 7 per cent larger than in 1925, the previous record year. The value of money orders issued was larger in each quarter of the year than in the corresponding quarter of 1925.

Real estate conveyances in 41 large cities were slightly greater in value in 1926 than in 1925 and exceeded all previous years. (Table 31.) Conveyances during the first quarter of the year were 7 per cent larger than in the corresponding period of 1925, but in the second and third quarters were exactly the same as a year earlier. These figures showed a decline in the fourth quarter of the year and were about 6 per cent smaller than the corresponding quarter of 1925. Detailed information concerning construction activity may be found in the section on Construction, presented on page 312.

Table 31.—Miscellaneous Distribution Indicators

[Monthly average 1919=100]

Period	Magazine advertising [1]	Newspaper advertising [2]	Value of domestic post-office money orders issued [3]	Real estate conveyances [4]
1920	122	114	115	113
1921	78	103	108	99
1922	83	109	113	119
1923	103	116	129	150
1924	108	115	137	152
1925	111	121	143	166
1926	120	125	153	167
1924				
Jan.-Mar	104	113	139	154
Apr.-June	125	123	137	159
July-Sept	86	98	128	144
Oct.-Dec	115	125	145	152
1925				
Jan.-Mar	101	113	142	150
Apr.-June	125	124	141	178
July-Sept	91	106	135	165
Oct.-Dec	127	139	154	172
1926				
Jan.-Mar	111	118	149	161
Apr.-June	134	134	151	178
July-Sept	100	113	146	165
Oct.-Dec	136	136	164	162

[1] These figures represent the number of lines of advertising carried by 60 leading magazines.

[2] Compiled from 22 identical cities.

[3] Total of 50 cites transacting two-thirds of the total money-order business of the country.

[4] From official records of 41 large cities, covering value of sales.

Source: Department of Commerce, Survey of Current Business, which lists original sources.

Commercial and Bank Failures.

Commercial failures increased slightly in number during 1926, but liabilities were smaller than in any year since 1920. (Table 32.) Liabilities aggregated $409,000,000 according to Dun's Review, which was 8 per cent less than in 1925 and about 35 per cent less than in the year 1921, a period of marked business depression. Liabilities were smaller for all types of reporting businesses, the decrease being most marked in the case of agents and brokers. Monthly statistics for 1926 showed about the usual seasonal changes; failures declined during the first half of the year and in August were smaller than at any time during the last six years. They continued at a low level through November, but were considerably larger in December, which is a rather customary development at that period of the year.

Table 32.—Commercial Failures: Number and Liabilities, by Months

[Liabilities in millions and tenths of millions of dollars]

Month	Number						Liabilities					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	1,895	2,723	2,126	2,108	2,317	2,296	52.1	73.8	49.2	51.3	54.4	43.7
February	1,641	2,331	1,508	1,730	1,793	1,801	60.9	72.6	40.6	35.9	40.1	34.2
March	1,336	2,463	1,682	1,817	1,859	1,984	67.4	71.6	48.4	97.7	34.0	30.6
April	1,487	2,167	1,520	1,707	1,939	1,957	38.6	73.1	51.5	48.9	37.2	38.5
May	1,356	1,960	1,530	1,816	1,767	1,730	57.1	44.4	41.0	36.6	37.0	33.5
June	1,320	1,740	1,358	1,607	1,745	1,708	34.6	38.2	28.7	34.1	36.7	29.4
July	1,444	1,753	1,231	1,615	1,685	1,605	42.8	40.0	35.7	36.8	34.5	29.7
August	1,562	1,714	1,319	1,520	1,513	1,593	42.9	40.3	34.3	55.2	37.2	28.1
September	1,466	1,566	1,226	1,306	1,465	1,437	37.0	36.9	28.7	34.3	30.7	30.0
October	1,713	1,708	1,673	1,696	1,581	1,763	53.1	34.6	79.3	36.1	29.5	33.2
November	1,988	1,737	1,704	1,653	1,672	1,830	53.5	40.3	50.3	31.1	35.9	32.7
December	2,444	1,814	1,841	2,040	1,878	2,069	87.5	58.1	51.6	45.3	36.5	45.6

Source: Dun's Review, New York, N. Y.

Bank failures which have been very numerous in the years since 1920 were larger from the standpoint of liabilities in 1926 than in any previous year on record. Most of these failures were in the States west of the Mississippi River and Florida and Georgia. The bank failures in the Western States resulted largely from the decrease in value of agricultural land and the inefficient management of certain small banks. Failures in Florida and Georgia, on the other hand, were principally a consequence of the collapse of the Florida land boom.

Table 33.—Commercial and Bank Failures, by Classes

Year	Number of failures					Liabilities (in thousands of dollars)				
	Commercial				Banks	Commercial				Banks
	Total	Manufacturing	Trading	Agents, brokers, etc.		Total	Manufacturing	Trading	Agents, brokers, etc.	
1910	12,652	3,280	8,929	443	119	201,757	88,917	74,991	37,849	41,097
1911	13,441	3,502	9,480	459	107	191,062	87,372	84,240	19,450	25,512
1912	15,452	3,839	11,011	602	79	203,117	86,720	91,780	24,618	24,220
1913	16,037	4,243	11,145	649	120	272,672	123,123	115,115	34,435	31,546
1914	18,280	4,620	12,851	809	212	357,909	135,636	165,865	56,408	56,005
1915	22,156	5,116	16,030	1,010	133	302,286	112,026	150,234	40,026	37,223
1916	16,993	4,196	11,923	874	50	196,212	73,000	91,374	31,839	10,397
1917	13,855	3,691	9,430	734	42	182,441	79,544	70,117	32,781	18,452
1918	9,982	2,766	6,494	722	20	163,020	73,382	57,911	31,727	5,132
1919	6,451	1,865	4,013	573	50	113,291	51,614	37,670	24,007	16,521
1920	8,881	2,635	5,532	714	119	295,122.	127,992	88,558	78,571	50,708
1921	19,652	4,495	13,999	1,158	404	627,402	232,907	254,794	139,700	173,028
1922	23,676	5,682	16,923	1,071	277	623,896	214,925	271,388	137,583	77,736
1923	18,718	4,968	13,064	686	578	539,387	281,316	209,930	48,140	203,739
1924	20,615	5,208	14,393	1,014	613	543,225	286,770	203,190	53,265	202,926
1925	21,214	5,090	15,161	963	464	443,744	167,685	215,369	60,691	164,699
1926	21,773	5,395	15,268	1,110	608	409,232	158,042	201,334	49,856	212,075

Source: Dun's Review, New York, N. Y.

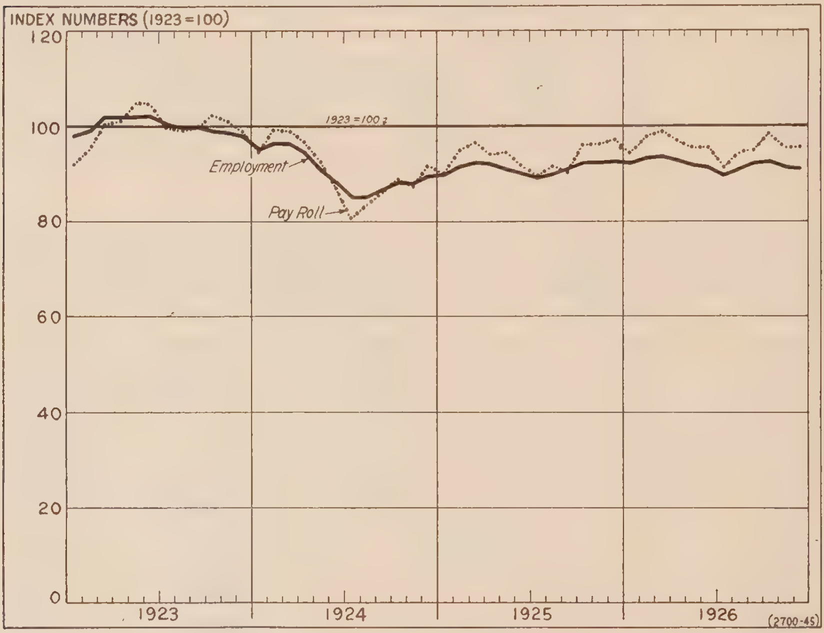
EMPLOYMENT, IMMIGRATION, AND WAGES

EMPLOYMENT AND PAY ROLL

Recent Changes in Factory Employment.

The most comprehensive measure of the volume of employment in manufacturing industries is based on data collected for one week of each month by the Department of Labor. These statistics cover 54 industries, comprising the 12 groups shown in Table 36, pages 55 and 56, and are based on reports from over 10,000 establishments employing approximately 3,000,000 persons. Comparisons are made from month to month for identical establishments, with the result that the wage earners and pay rolls of any newly established plants do not count in the aggregates. Over any considerable period of time, therefore, in a progressing country, the actual increase in the number of wage earners employed in industry and the amount paid them is necessarily greater than appears from the figures as originally published. This no doubt holds true in some measure even for a period as short as two or three years. This defect is inherent in the nature of the method necessarily used; it appears also in other indexes of employment. Changes over longer periods in volume of employment can be judged only by censuses covering all plants. The indexes are entirely satisfactory for showing the fluctuations in employment from month to month.

Chart X.—INDEXES OF EMPLOYMENT AND PAY ROLL IN MANUFACTURING INDUSTRIES



The variations in the amount of pay roll are normally more marked than those in the number of persons on the rolls, since the amount reflects both changes in the number employed and changes in the average working time, besides such changes as may occur in wage rates. The two indexes, however, almost invariably move in the same direction.

Table 34.—Department of Labor Indexes of Employment and Pay Rolls

[Indexes based on monthly average 1923=100. Statistics cover 54 industries comprising the 12 groups shown in Table 36 and are based on reports from over 10,000 establishments employing approximately 3,000,000 persons. Indexes are weighted according to relative importance of industries included]

Month	Index of employment				Index of pay roll			
	1923	1924	1925	1926	1923	1924	1925	1926
Average	**100.0**	**90.3**	**91.2**	**91.9**	**100.0**	**90.6**	**93.6**	**95.8**
January	98.0	95.4	90.0	92.3	91.8	94.5	90.0	93.9
February	99.6	96.6	91.6	93.3	95.2	99.4	95.1	97.9
March	101.8	96.4	92.3	93.7	100.3	99.0	96.6	99.1
April	101.8	94.5	92.1	92.8	101.3	96.9	94.2	97.2
May	101.8	90.8	90.9	91.7	104.8	92.4	94.4	95.6
June	101.9	87.9	90.1	91.3	104.7	87.0	91.7	95.5
July	100.4	84.8	89.3	89.8	99.9	80.8	89.6	91.2
August	99.7	85.0	89.9	90.7	99.3	83.5	91.4	94.6
September	99.8	86.7	90.9	92.2	100.0	86.0	90.4	95.1
October	99.3	87.9	92.3	92.5	102.3	88.5	96.2	98.6
November	98.7	87.8	92.5	91.4	101.0	87.6	96.2	95.4
December	96.9	89.4	92.6	90.9	98.9	91.7	97.3	95.6

Source: Bureau of Labor Statistics, Department of Labor.

Factory employment in 1926 averaged slightly higher than in 1925, continuing the advances begun in the latter part of 1924. This increase in employment extended through the spring of 1926. The slight recession in the summer of 1926 was accounted for largely by seasonal conditions but in the fall the index did not make the usual seasonal rise and in December it fell below the corresponding month of 1925. In this, it followed closely the trend of manufacturing production, although with smaller fluctuations. The pay-roll index showed similar changes; fluctuations were wider than for the employment index, but were much less than the fluctuations in the manufacturing-production index. At the end of the year both the employment and pay-roll indexes were lower than at the end of either 1923 or 1925, though higher than at the end of 1924.

Pay rolls are increasing faster than the number of workers; between July, 1924, the most recent low point, and December, 1926, employment increased 7.2 per cent, while pay rolls increased two and one-half times as much, or 18.3 per cent. As the hours of labor are shown in Table 43 to be declining and wage changes have recently been comparatively small, elimination of part-time work and increased overtime are apparently the chief factors in this increase in average earnings per worker.

In comparing the annual index of employment for 1926 with 1923, the apparent decrease of over 8 per cent in number of workers in factories is evidently partly owing to the fact that new establishments do not get into the index. By comparing the decline between 1923 and 1925 in this index, which amounted to 8.8 per cent and in the average number of workers reported by the census of manufactures for those years (Table 13), which declined only 4.4 per cent, it is seen that the actual decline in employment has been only about half that recorded by the index. Pay rolls which decreased 6.4 per cent between 1923 and 1925 on the basis of the monthly index, were only 2.5 per cent below 1923 on the basis of the wages paid in all manufacturing industries as collected through the census of manufactures.

Table 35.—Indexes of Employment of Labor and Pay Roll in Manufacturing Industries in Certain States and Cities

[Base years: New York, 1914; Pennsylvania and New Jersey, 1923; Wisconsin, 1915; Illinois, 1922; Detroit, 1920]

Month	New York[1]		Pennsylvania		New Jersey		Wisconsin[2]		Illinois[3]	Detroit[4]
	Employment	Pay roll	Employment	Pay roll	Employment	Pay roll	Employment	Pay roll	Employment	Employment
1924										
March	113	256	95	95	95	96	126	289	108	134
June	102	224	86	80	88	88	111	243	101	111
September	102	231	85	79	87	86	114	248	97	111
December	104	237	89	90	89	90	116	267	98	54
1925										
March	107	245	92	91	87	88	120	279	99	127
June	103	231	90	85	85	87	122	285	97	135
September	105	238	90	83	91	89	124	287	98	145
December	108	252	93	92	95	100	124	291	100	73
1926										
January	107	251	92	88	94	98	123	282	99	147
February	108	248	94	92	94	97	125	302	101	152
March	108	252	93	92	93	98	125	303	102	152
April	106	247	93	90	91	96	123	299	102	142
May	104	241	92	89	89	95	122	285	101	138
June	104	242	92	89	88	96	121	281	101	127
July	102	236	92	84	89	96	126	271	101	131
August	102	237	93	87	90	98	126	282	101	135
September	105	247	95	89	97	106	124	278	103	132
October	106	250	96	94	97	110	121	286	102	124
November	105	245	95	91	97	109	119	262	101	116
December	104	245	93	92	96	111	116	254	100	49

[1] Relative to average of 7 months, June to December, 1914.
[2] Relative to first quarter of 1915.
[3] Based on the number on the pay roll nearest the 15th of the month.
[4] Based on the figures for the last week of the month; the December index is low on that account.

Source: Department of Commerce, Survey of Current Business, which see for original sources.

Reports from various State labor bureaus and from the city of Detroit indicate movements in employment generally closely parallel to the general index of the Department of Labor. (Tables 35 and 38; in the latter all the indexes being converted to the same base, 1923 taken as 100.) In the last quarter of 1926, in which employment and production in factories declined in general, increases over the corresponding period of 1925 were shown in Pennsylvania, New

Jersey, and Illinois, while in New York, Wisconsin, and Detroit, declines took place. The States in the first group all recorded increases for the year in employment, while the others showed little change from the 1925 average. The decline in automobile production is illustrated in the decrease in Detroit employment figures for the last quarter.

Indexes for Groups and Individual Industries.

Separate indexes of the number employed and of pay rolls are computed by the Department of Labor for 12 major groups of manufacturing industries. (Table 36.) These group data are subject to the same defect regarding comparisons over long periods of time as the general index. Increases over 1925 average employment were made in the iron and steel, other metals, paper, chemicals and oils, stone, clay, and glass products, vehicles, and miscellaneous groups, while declines were made in the food products, textiles, lumber, leather, and tobacco groups. Pay rolls showed the same trend in each group in comparison with 1925 as did employment except that in food products a slight decline in average employment was accompanied by increased pay rolls, while for the vehicle industry payments were smaller despite larger employment, evidently owing to shorter operating time.

At the end of the year, employment and pay rolls were lower than a year previous for all groups except leather, paper, and miscellaneous, while for chemicals payments were larger but employment less.

Table 36.—Indexes of Employment and Pay Roll Totals in Major Groups of Manufacturing Industries

[Monthly average 1923=100. Combined index for each group is weighted according to relative importance of industries covered. Figures represent number on pay roll and amount of pay roll for one week of each month]

Yearly average and month	Food products		Textile products		Iron and steel products		Other metal products		Lumber and manufactures		Leather products	
	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	95.6	97.9	88.2	86.8	86.3	86.6	92.7	91.6	94.8	97.3	90.6	88.3
1925 average	90.9	93.7	89.3	89.5	87.3	90.6	96.7	97.9	93.1	98.1	92.0	89.4
1926 average	89.8	93.8	86.1	85.9	92.0	97.2	97.5	98.5	90.8	97.7	90.3	87.8
1924												
March	96.7	98.6	96.0	96.9	94.6	99.5	101.6	105.3	96.8	100.8	97.0	96.1
June	94.2	97.7	84.7	78.9	85.1	82.1	91.3	86.7	94.6	98.9	83.0	79.1
September	97.1	99.6	83.7	83.5	79.9	77.1	85.0	83.6	93.4	95.6	90.6	91.2
December	95.6	100.1	88.7	90.3	84.5	88.5	93.4	95.5	92.7	96.7	90.8	88.3
1925												
March	90.1	92.6	92.4	97.0	88.8	94.0	97.3	99.9	92.5	97.9	95.4	96.0
June	89.3	93.3	87.8	84.8	86.6	88.7	95.9	97.0	93.7	100.2	85.9	82.3
September	92.3	93.0	86.9	83.2	86.4	85.4	96.3	92.6	94.2	99.7	94.8	90.6
December	92.5	96.7	89.6	90.0	90.1	96.9	101.5	105.7	91.6	99.8	89.2	84.3
1926												
March	88.3	91.9	90.0	93.0	93.1	100.7	102.9	106.9	89.7	96.3	91.4	90.2
June	88.7	93.9	84.0	81.4	92.6	98.2	96.3	97.5	92.1	100.0	85.3	82.7
September	92.4	96.3	84.2	82.9	92.6	96.0	95.7	93.6	91.8	100.2	93.9	93.6
December	90.4	95.2	87.7	89.2	89.8	96.3	93.6	95.6	88.2	96.4	90.9	86.0

Table 36.—Indexes of Employment and Pay Roll Totals in Major Groups of Manufacturing Industries—Continued

Yearly average and month	Paper and printing		Chemicals, etc.		Stone, clay, and glass		Tobacco manufacture		Vehicles		Miscellaneous industries	
	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	100.2	102.2	91.6	92.7	96.7	101.3	94.0	95.6	88.6	87.5	87.8	90.6
1925 average	100.8	102.9	94.2	95.9	97.6	103.5	92.0	92.7	91.0	93.5	91.6	94.6
1926 average	103.6	111.5	98.4	101.8	99.7	106.4	85.6	87.7	91.2	92.8	96.8	101.9
1924												
March	101.2	104.2	102.5	101.4	99.1	105.2	95.4	98.0	95.9	96.5	95.7	99.2
June	99.4	101.0	84.6	88.6	99.4	106.0	92.2	95.4	85.3	84.4	84.8	86.1
September	99.8	101.2	88.0	89.0	95.0	97.6	94.9	96.6	84.2	81.6	82.2	84.5
December	101.7	106.1	90.2	91.9	94.3	100.3	96.3	102.5	85.4	86.1	87.2	90.4
1925												
March	101.5	106.0	99.0	100.3	95.5	101.9	93.6	90.4	89.9	95.6	93.2	98.1
June	99.4	102.6	87.1	91.0	100.7	106.0	90.6	92.3	90.3	92.6	90.9	92.8
September	100.2	102.5	97.3	95.6	99.8	103.4	92.0	91.9	92.1	90.9	90.1	90.6
December	103.6	112.5	98.0	100.6	98.3	106.3	95.0	101.2	92.7	96.9	94.2	98.9
1926												
March	103.1	111.7	105.2	105.8	96.3	103.8	88.2	90.1	96.1	100.2	98.3	102.9
June	102.5	110.8	93.7	100.0	104.0	112.4	86.7	88.6	92.1	94.7	94.8	100.3
September	104.0	110.8	100.3	102.5	103.6	108.1	85.1	89.1	91.3	91.3	96.4	99.3
December	106.1	116.3	97.0	103.5	96.4	104.8	86.5	89.8	82.6	82.3	101.0	109.7

Source: Bureau of Labor Statistics, Department of Labor.

Compared with the 1923 base, paper and printing showed the greatest increase in both employment and pay rolls; in employment it had the only gain between 1923 and 1926, while in pay rolls, the chemicals and oils, stone, clay, and glass, and miscellaneous groups also made gains. The principal declines from 1923 were made in textiles and tobacco products, with decreases of from 12 to 14 per cent in both employment and pay rolls.

Pay roll and employment indexes for the principal individual industries (Table 37) show as a rule trends corresponding to the respective group totals. In three groups, however, different trends since 1923 are shown by important industries. In the iron and steel products group, employment at iron and steel mills has shown much less decline since 1923 than employment at foundries and machine shops. Employment at paper and pulp mills has been consistently below 1923, while in newspaper printing establishments a large increase has taken place, which resulted in a gain in the index for the total paper and pulp group. Automobile employment was well above the 1923 average in 1925 and 1926, but the decline in employment in railroad car factories, amounting to almost 20 per cent since 1923, has pulled down the vehicle group average. In the textile group, however, the important cotton goods and woolen and worsted goods industries in general kept fairly close together, although cotton goods employment shows only a small decrease from 1925 to 1926 and in woolens the decline was over 9 per cent. At the end of the year woolens had recovered to the level of cotton goods.

Table 37.—Indexes of Employment and Pay Roll Totals in Leading Individual Manufacturing Industries

[Monthly average 1923=100. Figures represent number on pay roll and amount of pay roll for one week of each month]

Yearly average and month	Slaughtering and meat packing		Cotton goods		Woolen and worsted goods		Iron and steel		Foundry and machine-shop products		Boots and shoes	
	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	93.7	94.4	83.0	80.7	91.0	90.1	93.5	93.9	80.6	78.8	91.4	87.9
1925 average	85.0	86.7	84.0	81.9	88.9	87.2	95.9	99.1	80.7	81.8	92.6	88.6
1926 average	81.4	84.5	83.1	81.0	80.3	78.9	97.9	102.8	86.7	90.3	90.0	85.5
December, 1925	86.6	90.3	85.4	85.7	87.4	85.4	98.1	105.1	82.7	87.1	88.5	80.3
1926												
March	79.4	81.8	86.8	87.5	78.1	76.1	99.6	107.3	87.7	93.4	90.8	87.6
June	79.7	83.6	81.7	77.4	76.4	74.7	97.2	102.0	88.8	93.6	84.8	80.2
September	81.7	86.2	81.0	78.1	79.9	77.1	98.2	102.0	87.2	88.3	94.4	93.4
December	84.4	88.9	85.6	86.6	85.4	87.1	94.7	101.3	85.3	89.9	89.5	82.4

Yearly average and month	Paper and pulp		Printing, newspaper		Petroleum refining		Automobiles		Car building and repairing steam railroad		Electrical machinery, apparatus, and supplies	
	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll	Employed	Pay roll
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	94.3	96.8	104.1	106.1	92.1	89.8	93.6	91.1	85.5	85.0	93.8	97.7
1925 average	94.4	99.2	106.7	110.1	94.3	93.2	106.5	111.3	81.3	82.2	90.9	95.0
1926 average	95.6	102.5	111.8	118.3	100.3	97.9	107.6	108.7	80.8	82.7	98.7	103.1
December, 1925	94.8	103.3	111.2	119.0	99.1	95.6	112.4	120.1	80.1	82.1	99.4	107.0
1926												
March	95.6	103.5	110.8	117.0	97.4	95.8	118.2	125.4	82.5	84.6	98.9	104.9
June	95.9	102.9	110.7	117.7	100.9	100.4	108.5	108.5	82.0	86.2	96.7	103.2
September	95.9	101.6	111.5	117.2	102.7	99.8	108.0	109.3	80.5	79.6	99.4	100.2
December	94.4	102.8	116.1	124.9	101.1	99.6	90.1	81.8	77.9	82.3	99.0	105.4

Source: Bureau of Labor Statistics, Department of Labor.

Among these individual industries, printing made the greatest gain in employment from 1923, almost 12 per cent, while employment at automobile factories increased 8 per cent. Employment in all the other groups was below the 1923 average though gains in pay roll were made by iron and steel, paper and pulp, and electrical machinery. The greatest employment gain over 1925 occurred in the electrical industry, followed by foundry and machine-shop products, petroleum refining, and printing. Woolens showed the only large decrease from 1925 to 1926.

Further information regarding variations in the time worked by factories is shown in Table 35 dealing with hours of labor and earnings.

Changes in Factory Employment Since 1919.

As previously pointed out, changes in employment and pay rolls over a long period of time can be accurately indicated only if new establishments are added from time to time, as in a complete census. The United States census of manufactures, taken formerly every five years and since 1919 biennially, is the most complete and satisfactory measure of general changes. The census figures have also been used to adjust the indexes of employment compiled by various States, as well as that prepared by the Federal Reserve Board, which otherwise is based on the same original data as the Department of Labor index, except for the exclusion of certain industries, like shipbuilding. (Table 38.)

Employment in 1923 was over 2 per cent smaller than in 1919, but this decline was confined largely to the shipbuilding industry. Shipbuilding was abnormally expanded in 1919 and, being an industry closely allied with construction, many of its employees were later absorbed in construction work rather than by other manufacturing industries.

Decreased employment was reported for 1925 as compared with 1923 in the railroad equipment factories and railroad repair shops, in textile mills, in foundries and machine shops, and in a large number of less important industries. The increased efficiency of labor and of plants explains the discrepancy between this decline and the gain in production in this period.

Total payments to wage earners were also smaller in 1925 than in 1923 on the basis of census returns but were larger than in 1919, especially when shipbuilding is excluded.

Table 38.—Annual Average Indexes of Employment of Labor and Pay Roll in Manufacturing

[Base 1923=100 (recalculated from varying bases in original sources). The indexes of certain series for 1914 are omitted as incomparable; census data are available only for years shown]

Source	1914	1919	1920	1921	1922	1923	1924	1925	1926
EMPLOYMENT									
Census, average number of wage earners, United States	78.6	102.5	-------	79.1	-------	100.0	-------	95.6	------
Same, excluding shipbuilding	78.6	98.8	-------	78.5	-------	100.0	-------	95.7	------
Federal Reserve Board, United States	-------	96.2	99.2	78.9	86.9	100.0	91.3	91.7	91.9
Department of Labor, United States (unadjusted)	-------	108.2	109.9	85.1	88.4	100.0	90.3	91.2	91.9
New York (State bureau)	86.2	103.4	106.9	83.6	90.5	100.0	91.4	90.5	90.5
Massachusetts (State bureau)	93.8	110.3	107.6	89.5	94.8	100.0	84.7	85.5	84.2
Wisconsin (State bureau)	-------	109.7	108.9	75.8	86.3	100.0	94.4	98.4	99.2
PAY ROLL									
Census, total wages paid, United States [1]	36.9	95.0	-------	74.5	-------	100.0	-------	97.5	------
Same, excluding shipbuilding [1]	36.9	90.3	-------	73.7	-------	100.0	-------	97.7	------
Federal Reserve Board, United States	-------	88.3	109.1	73.9	78.8	100.0	92.0	94.7	96.3
Department of Labor, United States	-------	103.6	125.9	80.0	79.9	100.0	90.6	93.6	95.8
New York (State bureau)	39.4	89.4	110.6	79.1	83.1	100.0	92.5	93.7	96.5
Wisconsin (State bureau)	-------	105.2	126.7	70.7	77.8	100.0	97.0	105.6	104.4

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[1] Figures for 1914 and 1919 are not strictly comparable with later years because of the inclusion in the earlier years of establishments with products valued at less than $5,000, as a separate tabulation was not made for wages by value of product groups. The increase from 1914 and 1919 to 1923 was actually somewhat greater than these figures indicated.

RAILROAD, CONSTRUCTION, AND FARM EMPLOYMENT

Employment on the railroads was greater in each month of 1926 than in the corresponding month of 1925. The average number of employees was 2 per cent greater than in 1925 and exceeded 1924 by about the same ratio. Employment was about 3 per cent less than in 1923, however. The increases over 1925 were more marked in the summer months when the peak traffic loads were being moved.

The only current index on employment in the construction industry is that prepared by the Bureau of Business Research of Ohio State University covering construction in the State of Ohio. In marked contrast to the manufacturing and railroad figures, construction employment in 1926 according to this index showed a decline of over 8 per cent from 1925 and was smaller than in any year since 1922. During the first two months of 1926 this index was higher than in the corresponding months of 1925, but thereafter it fell behind the corresponding months a year earlier.

Comprehensive figures on the employment of farm labor are available only once a year as ratios of supply and demand. The Department of Agriculture prepares as of April 1 each year a report of the percentage which both supply of farm labor and demand for farm labor represent of normal. By dividing one percentage by the other, a rough indication of the relation of supply to demand is obtained.

Farm labor supply on April 1, 1927, was slightly larger than for the two previous years, considerably larger than in 1923 and 1924, but less than in 1921 and 1922. The supply of farm labor was greater relative to demand on April 1, 1927, than at any time since 1922.

Table 39.—Farm Labor Supply and Demand: Condition on April 1

Item	1920	1921	1922	1923	1924	1925	1926	1927
Farm labor supply........per cent of normal..	72.9	95.5	99.7	84.2	84.1	90.0	89.2	90.8
Farm labor demand........................do....	105.2	87.3	88.8	93.6	90.6	90.4	91.0	88.6
Supply as a percentage of demand.............	69.3	109.4	112.3	90.0	92.8	99.5	98.1	102.5

Source: Bureau of Agricultural Economics, Department of Agriculture.

IMMIGRATION AND EMIGRATION

Variations in volume of immigration and emigration exercise some influence on the general industrial situation through their effect on labor supply, but in view of the restrictions imposed by recent laws it is no longer possible to discern any important influence of changes in the general activity and prosperity of industry upon the number of immigrants. Since July 1, 1924, the permissible number of immigrants, except from North and South America, has been limited to 2 per cent of the number born in the given country of origin who were resident in the United States in 1890—certain relatives and minor classes being exempt from the limitation. There was a similar but much less drastic limitation in effect from 1921 to 1924.

More immigrants were admitted in the calendar year 1926 than in the previous year, the first full year during which the new law was in operation. The total immigration in 1926 amounted to 336,000 which was 16 per cent more than in 1925. (Table 40.) Departures of aliens have decreased for the past two years, so that the net immigration in 1926 was 26 per cent more than in 1925 and only slightly less than in 1924. Compared with 1925, net immigration increased by 54,000 or over 25 per cent.

Table 40.—Immigrant Aliens Admitted and Emigrant Aliens Departed

Years ended June 30	Admissions	Departures	Excess of admissions
1910–1914, total	5,174,701	1,442,892	+3,731,809
1915–1919, total	1,172,679	618,223	+554,456
1920–1924, total	2,774,600	892,984	+1,881,616
1921	805,228	247,718	+557,510
1922	309,556	198,712	+110,844
1923	522,919	81,450	+441,469
1924	706,896	76,789	+630,107
1925	294,314	92,728	+201,586
1926	304,488	76,992	+227,496

Calendar years and periods	Admissions	Departures	Excess of admissions
1925			
January-June	146,577	35,097	+111,480
July-December	144,148	46,592	+97,556
Total	290,725	81,689	+209,036
1926			
January-June	160,340	30,400	+129,940
July-December	175,955	42,779	+133,176
Total	336,295	73,179	+263,116

Source: Reports of the Commissioner General of Immigration, Department of Labor.

While between 1924 and 1925 European immigration increased almost 50 per cent and arrivals from other places declined markedly, 1926 showed increases from all parts of the world. (Table 41.) Immigration from American countries showed the greatest increases, both numerically and relatively. The most noteworthy increase was shown by the countries to the south of us, which increased their immigration by 70 per cent. Europe, however, still furnished over half of our immigrants, though the total increase from that continent was relatively small.

Table 41.—Immigrant Aliens Admitted and Emigrant Aliens Departed, by Region of Last or Future Permanent Residence

Year	From or to Europe		From or to Canada and Newfoundland		From or to other North and South America		From or to other countries	
	Admissions	Departures	Admissions	Departures	Admissions	Departures	Admissions	Departures
FISCAL YEAR								
1910–1914, total	4, 524, 169	1, 176, 037	329, 316	195, 872	177, 366	34, 056	143, 850	36, 927
1920–1924, total	1, 787, 303	758, 619	526, 853	22, 980	357, 136	58, 062	103, 308	53, 323
1923	307, 920	61, 656	117, 011	2, 775	82, 976	8, 849	15, 012	8, 170
1924	364, 339	58, 988	200, 690	2, 601	118, 223	7, 630	23, 644	7, 570
1925	148, 366	75, 064	102, 753	2, 580	38, 743	8, 981	4, 452	6, 103
1926	155, 562	60, 040	93, 368	2, 456	51, 025	9, 029	4, 533	5, 467
CALENDAR YEAR								
1924	108, 834	73, 036	160, 181	2, 524	73, 753	7, 977	12, 002	6, 584
1925	158, 394	63, 846	87, 696	2, 629	40, 538	9, 349	4, 097	5, 865
1926	165, 171	56, 604	96, 275	2, 196	69, 740	8, 335	5, 109	6, 044

Source: Reports of the Commissioner General of Immigration, Department of Labor.

HOURS OF LABOR, WAGES, AND EARNINGS

Average Weekly Earnings per Capita.

The working time in factories has varied little in the past seven years, according to the index compiled by the National Industrial Conference Board from data in 1,678 manufacturing plants. Actual hours worked, which vary from the total working time on account of part-time employment of some of the force, averaged the same in 1926 as in 1925, but was greater than in 1924 when there was less full-time employment.

Average weekly earnings increased slightly over 1925, owing entirely to the increased earnings of skilled workers. Earnings in 1926 were the highest since 1920, except for women, whose earnings were larger in 1923, and for unskilled male workers, whose 1925 earnings were slightly larger. In 1920 earnings were considerably larger than in 1926 for all groups, owing to the boom period of prices. Weekly earnings of all classes, according to this index, more than doubled since 1914. Reports on factory earnings in New York and Illinois showed increased earnings in 1926 over 1925, the figures for New York even showing a gain over 1920. Earnings in Wisconsin averaged the same as in 1925, while for Massachusetts a third successive annual decrease in earnings was recorded, largely because of depressed conditions in the textile industry.

Wages of common road labor averaged higher in 1926 than in any year since 1920. Road labor wages increased generally throughout the year, the maximum being reached in December, in which month particularly large increases were shown in the New England and South Atlantic States. For the year 1926 as a whole increases over 1925 were generally recorded in wages of road labor throughout the Atlantic seaboard and in the eastern North Central States, while decreases occurred in the States west of the Mississippi outside of the southern group.

Table 42.—Indexes of Hours and Earnings of Labor in Factories and of Wages of Common Labor on Roads

[Indexes based on monthly average for 1914 taken as 100 except for Illinois, where base period is last half of 1922; for Wisconsin, first quarter of 1915; and for common road labor, the year 1915]

Year or month	Index of average hours worked (1,678 plants) 1914=100		Index of average weekly earnings (1,678 plants) 1914=100				Index of average weekly earnings in specified States				Wages, common road labor [1]
	Nominal operation	Actual operation	All workers	Male, skilled	Male, unskilled	Women	Massachusetts	New York [2]	Illinois [3]	Wisconsin	United States
1920	[4] 91	[4] 95	[4] 235	[4] 235	[4] 253	[4] 233	227.6	226	-------	254	245
1921	90	88	188	188	191	205	196.8	206	-------	202	180
1922	[5] 91	[5] 96	[5] 192	[5] 194	[5] 192	[5] 204	196.6	201	100	196	160
1923	91	96	209	213	211	223	223.8	218	110	218	190
1924	90	91	209	212	213	215	210.8	222	111	223	190
1925	91	94	215	218	221	220	187.3	227	113	233	190
1926	91	94	217	220	220	220	182.1	233	116	233	195
1923											
March	91	97	204	208	201	218	220.7	216	104.6	210.4	165
June	91	96	216	218	216	229	229.5	223	114.7	225.6	195
September	90	93	213	215	216	225	230.0	220	112.3	221.2	200
December	90	93	215	214	213	222	228.0	224	114.4	221.7	200
1924											
March	91	93	214	213	221	222	221.1	226	111.8	230.8	205
June	91	88	203	213	214	203	213.5	218	110.9	218.5	195
September	90	90	207	210	211	218	192.4	225	110.1	218.2	195
December	91	91	214	216	215	219	190.1	226	114.8	229.1	185
1925											
March	91	94	217	220	223	225	188.9	228	112.1	231.7	190
June	91	92	211	216	217	216	182.9	224	113.8	232.4	190
September	91	94	215	218	219	217	186.5	227	107.6	231.1	190
December	91	95	219	223	225	222	187.8	233	116.4	235.2	190
1926											
March	91	95	219	225	226	221	184.8	233	116.1	241.9	195
June	91	91	216	222	225	218	178.7	232	117.5	236.6	190
September	90	94	218	222	224	221	181.0	235	113.2	229.3	195
December	90	93	216	217	220	221	181.3	236	116.9	223.0	200

[1] Compiled by Bureau of Public Roads, Department of Agriculture; since January, 1922, relates exclusively to labor on Federally aided roads.
[2] The base upon which the index numbers are calculated is an average of June to December, 1914.
[3] Relative to last 6 months of 1922.
[4] Average of last 7 months of the year.
[5] Average of last 6 months of the year.

Source: Department of Commerce, Survey of Current Business, which lists original sources.

The Department of Labor does not compute from its statistics of employment and pay roll payments a consecutive index of average per capita weekly earnings, but percentages of change are calculated for identical establishments as compared with a month previous and a year previous. For 1926, the month-to-month trends were the same as in 1925, except for May, June, and November, the greatest increases over the previous month being made each year in October and February, while January of each year showed the greatest decline in earnings from the previous month. The per capita earnings in

1926, however, were consistently greater than in the corresponding months of the previous year, the greatest relative increases over 1925 taking place in August and September, which were also the two months of highest production.

Union Scales of Wages.

The combined index of union wage rates compiled by the Department of Labor, as of May 15 each year, shows for May, 1926, the hourly rate at two and one-half times the 1913 rate. (Table 43.) This was owing to a further slight reduction in the full-time hours per week and a continued increase in the weekly wage rates. The increase in both weekly and hourly rates was greater between May, 1925, and May, 1926, than in the previous 12 months' period. In 1926 the wage rates, both weekly and hourly, were the highest recorded and full-time working hours the lowest. This index which represents the minimum rate specified in agreements between trade unions and employers covers only a few branches of industry, chiefly the building trades and printing trades, although formerly the metal trades were well represented. Since wages in the building industry have moved differently from those in other industries, being depressed in the war years and advancing more rapidly than other industries during the later expansion in building construction, this index is hardly typical of wage changes for all skilled labor.

Table 43.—Index Numbers of Union Wage Rates and Hours of Labor in the United States as of May 15

[1913=100]

Year	Index numbers			Year	Index numbers		
	Rate of wages per hour	Full-time hours per week	Rate of wages per week, full time		Rate of wages per hour	Full-time hours per week	Rate of wages per week, full time
1907	89.7	102.6	91.5	1917	114.2	98.4	112.4
1908	91.0	102.1	92.5	1918	132.7	97.0	129.6
1909	91.9	101.9	93.3	1919	154.5	94.7	147.8
1910	94.4	101.1	95.2	1920	199.0	93.8	188.5
1911	96.0	100.7	96.5	1921	205.3	93.9	193.3
1912	97.6	100.3	97.7	1922	193.1	94.4	183.0
1913	100.0	100.0	100.0	1923	210.6	94.3	198.6
1914	101.9	99.6	101.6	1924	228.1	93.9	214.3
1915	102.8	99.4	102.3	1925	237.9	93.0	222.3
1916	107.2	98.8	106.2	1926	250.3	92.8	233.4

Source: Bureau of Labor Statistics, Department of Labor.

The hourly rates for the principal occupations making up this index are given in Table 44. Bakers, job press assistants, and hod carriers have had the greatest increases since 1913 of the occupations listed, while the various newspaper-printing occupations made the smallest relative gains. With the exception of bakers, sign painters, and newspaper machinists (both operators and tenders) all occupations listed showed increases in hourly rates over 1925. As compared with these four decreases during the year ending May, 1926, there were seven decreases in hourly rates during the year ending May, 1925. Most of the increases were relatively greater during the year ending May, 1926, than a year earlier. Increases of 10 per cent or more in hourly wages between May, 1925, and May, 1926, were obtained by parquetry-floor layers, stonemasons, and granite cutters.

Table 44.—Average Union Wage Rates Per Hour, and Index Numbers of Hourly Rates, in Specified Trades, as of May 15

Trade	Average rate of wages per hour			Index, rates of wages per hour, 1913=100; 1926
	1922	1925	1926	
Bakers	$0.891	$0.979	$0.925	277.2
BUILDING TRADES				
Bricklayers	1.164	1.475	1.565	226.4
Building laborers	.714	.773	.851	254.9
Carpenters	.973	1.184	1.267	238.4
Parquetry-floor layers	1.254	1.226	1.439	253.1
Engineers, portable and hoisting	1.033	1.265	1.336	217.2
Hod carriers	.721	.920	1.002	273.8
Painters, house	1.009	1.232	1.305	257.5
Fresco	1.074	1.198	1.199	220.1
Sign	1.231	1.530	1.523	240.4
Plasterers	1.173	1.485	1.595	236.1
Plasterers' laborers	.792	1.000	1.058	257.2
Plumbers and gas fitters	1.043	1.281	1.381	222.7
Stonemasons	1.097	1.401	1.545	253.1
Structural-iron workers	1.036	1.271	1.358	218.5
PRINTING AND PUBLISHING, BOOK AND JOB				
Bookbinders	.855	.958	.975	240.8
Compositors	1.001	1.064	1.085	242.1
Electrotypers	-------	1.197	1.209	252.2
Machine operators, time work	1.062	1.103	1.121	215.2
Press assistants and feeders	$0.781	$0.818	$0.827	281.9
Pressmen, cylinder	1.052	1.097	1.119	230.5
Pressmen, platen	.859	.890	.932	255.8
PRINTING AND PUBLISHING, NEWSPAPERS				
Compositors, daywork	1.013	1.103	1.120	196.7
Machine operators, daywork:				
Piecework	[1] .139	[1] .151	[1] .154	138.5
Timework	1.031	1.115	1.135	201.6
Machine tenders (machinists), daywork	1.064	1.090	1.089	185.2
Machinist operators, daywork	1.007	1.079	1.038	171.9
Pressmen, web presses, daywork	.871	.994	1.013	212.2
Stereotypers, daywork	.922	.973	.992	188.1
MISCELLANEOUS				
Chauffeurs	.574	.649	.657	226.3
Teamsters and drivers	.590	.667	.673	256.6
Freight handlers, longshoremen	.722	.828	.835	242.0
Granite cutters	1.089	1.110	1.250	244.1
Stone cutters	1.151	1.288	1.404	241.9

[1] Rate per 1,000 ems.

Source: Bureau of Labor Statistics, Department of Labor.

Other Indexes of Wage Rates.

While no comprehensive index of wage rates for manufacturing as a whole is available, data for several individual industries are compiled by the Department of Labor, usually at intervals of two years. (Table 45.) The hourly wages in these industries have increased from 100 to 200 per cent over 1913 except for tin-plate mills and sheet mills in the steel industry. Except for these two industries and lumber, for which the latest data cover 1925, the hourly rates have increased far more than has the cost of living. The men's clothing industry shows the greatest gain over 1913 in hourly wages, closely followed by open-hearth furnaces. Open-hearth furnaces was the only industry which showed an increase in wage rates for 1926 over 1920, since which year there has been a decline of 15 per cent in living costs. Wages in the cotton-goods industry have shown the greatest decline since 1920, but the increased proportion of cotton-goods workers in the Southern States, where wages were comparatively low, accounts for much of the decrease in this industry. As compared with 1924, decreases of from 6 to 12 per cent or more were made in hourly wages in cotton mills, woolen mills, tin-plate mills, puddling mills, and sheet mills, while smaller declines occurred in men's clothing establishments and blast furnaces. Increases of from 7 to 9 per cent over 1924 were shown by hosiery and underwear factories, open-hearth furnaces, and plate mills, with smaller increases in shoe factories, bar mills, bessemer converter plants, blooming mills, and rail mills.

Table 45.—Indexes of Wages Per Hour for Specified Industries

(1913=100)

Industry	1910	1913	1914	1915	1916	1918	1919	1920	1922	1924	1926
Textile industries:											
Cotton-goods manufacturing	88	100	103	------	121	180	------	324	223	251	222
Men's clothing industry	[1] 87	100	100	------	------	------	174	------	283	296	292
Woolen goods	90	100	103	------	127	193	------	355	268	301	277
Hosiery and underwear	82	100	104	------	------	------	183	------	213	246	267
Boot and shoe industry	92	100	101	------	108	140	------	232	208	214	219
Iron and steel industry:											
Blast furnaces	(2)	100	100	101	------	------	(2)	279	194	254	252
Open-hearth furnaces	(2)	100	100	104	------	------	(2)	283	203	268	286
Bar mills	(2)	100	97	92	------	------	(2)	248	169	203	205
Tin-plate mills	(2)	100	102	103	------	------	(2)	228	156	191	169
Bessemer converters	(2)	100	90	93	------	------	(2)	238	165	220	226
Puddling mills	(2)	(3)	100	96	------	------	(2)	270	151	220	200
Blooming mills	(2)	100	102	101	------	------	(2)	249	178	231	237
Plate mills	(2)	100	101	106	------	------	(2)	263	187	220	238
Standard-rail mills	(2)	100	99	97	------	------	(2)	249	185	226	234
Sheet mills	(2)	100	101	93	------	------	(2)	215	144	167	157
Lumber industry	97	100	------	91	------	------	194	[4] 166	[4] 180	[4] 178	(3)

[1] Data is for 1911.
[2] Data for 1910 and 1919 not comparable with other years.
[3] Data not collected.
[4] Data represent 1921, 1923, and 1925, respectively.

Source: Bureau of Labor Statistics, Department of Labor.

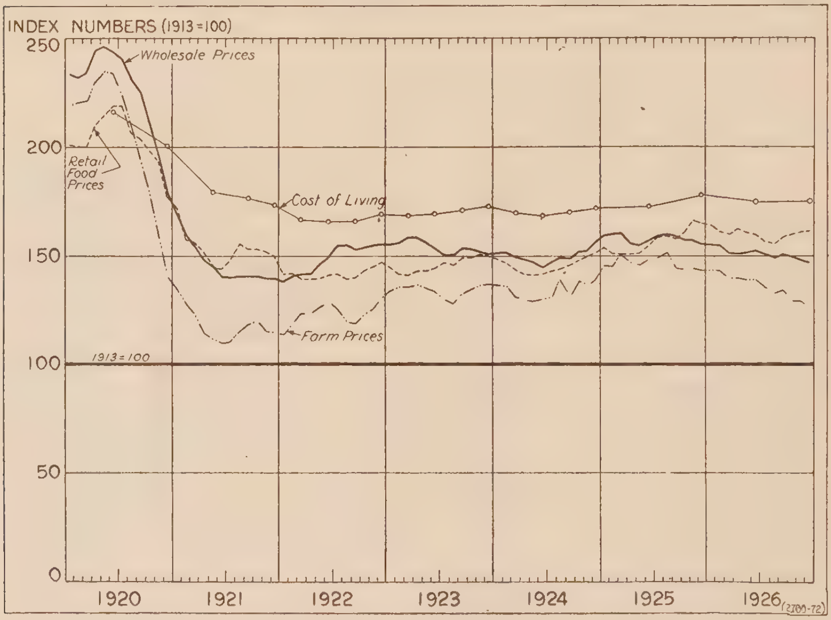
Farm Wages.

Farm wage data as compiled by the Department of Agriculture show an increase in 1926 of 60 per cent over 1913. Wages on the farms in 1926 were the highest since 1920 and made a larger gain over 1925 than did that year over 1924. Farm wages are affected by seasonal conditions and are usually highest in the fall, at the peak of crop harvesting.

WHOLESALE, RETAIL, AND FARM PRICES

SUMMARY.—Wholesale and farm prices averaged lower in 1926 than in 1925, while retail food prices increased to a point higher than in any year since 1920. The indexes for December, 1926, showed an accentuation of these tendencies, being lower, in the case of wholesale and farm prices, and higher, in the case of retail food prices, than the corresponding averages for the whole year 1926. The general cost of living index showed practically no change between 1925 and 1926 and in December, 1926, was about the same as its average for that year.

Chart I.—COMPARATIVE MONTHLY INDEXES OF WHOLESALE, RETAIL, AND FARM PRICES



Wholesale prices showed more variation during the course of 1926 than during the preceding year. The range from lowest to highest month was 6 per cent in 1926 compared with 3.7 per cent in 1925. There was a very marked downward movement during 1926, and the December index was the lowest of any month in the year. The decline in wholesale prices which took place during the past year extended to every group of commodities except fuels. The declines in the prices of farm products, of cloths and clothing, and of miscellaneous commodities were especially marked, continuing throughout the year with very few breaks.

Retail food prices decreased during most of the period from January to August, but increased during the remainder of the year. In December, 1926, they were considerably out of line with wholesale and farm prices in the extent to which they had risen over pre-war levels. In that month they stood at 162 compared with 147 and 127 for wholesale prices and farm prices, respectively. Retail prices did not reach such a high peak during the war and postwar boom as wholesale prices, but they have declined less during the postwar years and show a greater advance over pre-war levels, although this does not necessarily indicate higher costs of distribution.

Table 1.—Comparative Index Numbers of Wholesale, Retail, and Farm Prices

[Index numbers based on 1913 as 100]

Year	Wholesale prices	Retail food prices	Farm prices	Cost of living, total	Year	Wholesale prices	Retail food prices	Farm prices	Cost of living, total
1910	100.9	93.0	103		1920	226.2	203.4	205	208.5
1911	93.0	92.0	95		1921	146.9	153.3	116	177.3
1912	99.1	97.6	99		1922	148.8	141.6	124	167.3
1913	100.0	100.0	100	100.0	1923	153.7	146.2	135	171.0
1914	98.1	102.4	102	103.0	1924	149.7	145.9	134	170.7
1915	100.8	101.3	100	105.1	1925	158.7	157.4	147	175.7
1916	126.8	113.7	117	118.3	1926	151.0	160.6	136	175.2
1917	177.2	146.4	176	142.4	December, 1925	156.2	165.5	143	177.9
1918	194.3	168.3	200	174.4	December, 1926	147.2	161.8	127	175.6
1919	206.4	185.9	209	188.3					

Sources: Bureau of Labor Statistics, Department of Labor; Bureau of Agricultural Economics, Department of Agriculture. For further explanations see subsequent detailed tables.

Table 2.—Index Numbers of Wholesale, Retail, and Farm Prices, by Months

[Index numbers based on 1913 as 100. An asterisk (*) indicates the minimum and a dagger (†) the maximum month of each year]

Year	Average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Wholesale prices:													
1920	226.2	233.2	232.4	234.4	244.6	†246.7	243.3	240.7	231.4	226.2	211.3	196.4	*179.2
1921	146.9	†169.8	160.1	155.4	147.9	145.5	141.6	141.0	141.5	141.5	141.6	140.7	*139.8
1922	148.8	*138.3	141.4	142.2	142.6	147.6	149.6	154.9	155.0	153.3	154.1	155.5	†156.2
1923	153.7	155.8	156.7	158.6	†158.7	156.2	153.5	150.6	*150.1	153.7	153.1	152.1	151.0
1924	149.7	151.2	151.7	149.9	148.4	146.9	*144.6	147.0	149.7	148.8	151.9	152.7	†157.0
1925	158.7	160.0	160.6	†161.0	156.2	*155.2	157.4	159.9	160.4	159.7	157.6	157.7	156.2
1926	151.0	†156.0	155.0	151.5	151.1	151.7	152.3	150.7	149.2	150.5	149.7	148.1	*147.2
Retail food prices:													
1920	203	201	200	200	211	215	†219	219	207	204	198	193	*178
1921	153	†172	158	156	152	145	*144	148	155	153	153	152	150
1922	142	142	142	*139	*139	*139	141	142	*139	140	143	145	†147
1923	146.2	144.4	142.3	*141.9	143.1	143.4	144.3	147.2	146.4	149.3	149.8	†151.1	150.3
1924	145.9	149.1	147.3	143.7	141.3	*141.0	142.4	143.3	144.2	146.8	148.7	150.1	†151.5
1925	157.4	154.3	151.4	151.1	*150.8	151.6	155.0	159.9	160.4	159.0	161.6	†167.1	165.5
1926	160.6	†164.3	161.5	159.9	162.4	161.1	159.7	157.0	*155.7	158.5	160.0	161.6	161.8
Farm prices:													
1920	205	219	221	222	230	†235	234	224	209	194	178	158	*140
1921	116	†135	128	123	115	112	*110	111	116	118	120	116	115
1922	124	*114	118	123	123	127	128	126	120	119	123	126	†131
1923	135	134	136	136	†137	135	133	130	*128	132	134	136	137
1924	134	137	136	131	130	*129	130	132	†139	132	138	137	†139
1925	147	146	146	151	147	146	148	149	†152	144	*143	144	*143
1926	136	†143	†143	140	140	139	139	136	133	134	130	130	*127

Sources: Bureau of Labor Statistics, Department of Labor; Bureau of Agricultural Economics, Department of Agriculture.

WHOLESALE PRICES IN THE UNITED STATES

The broader movements over a series of years in the general index of wholesale prices have been attributable largely to changes in the relation between the volume of currency (including certain forms of credit) and the volume of goods exchanged. The short time fluctuations also may be affected by changes of this general character, but they are usually owing more to variations in the degree of business activity and in the supply and demand of certain major articles which exercise a great influence in the index. The index of the Bureau of Labor Statistics includes a larger proportion of crude materials than of advanced products, and the former normally fluctuate in price more rapidly than the latter, so that the index is, over short periods of time, more variable than would be the case if it were possible to include all commodities. Farm products account in the weighting assigned for practically one-fourth of the entire wholesale price index, and food products, which are naturally largely dependent on prices of farm products, for approximately another one-fourth. Farm products vary more in price than most other commodities. It seems probable that, were there a larger representation of the more elaborated manufactured commodities, the index would show for recent years somewhat less advance over the pre-war period. Improvements in methods of production and increase in volume of output often lower, at least relatively, the cost of such articles, especially those of comparatively new introduction.

The General Index.

After declining from a peak of 247 (1913 taken as 100) in May, 1920, to a minimum of 138 in January, 1922, the general index of wholesale prices rose gradually to 159 in the spring of 1923 (Table 2). Somewhat lower levels prevailed for some time thereafter, the low point of 144.6 being reached in June, 1924. Largely because of the advance in farm products, the index then rose rather rapidly to a maximum of 161 in March, 1925. During the second half of 1925 it registered a rather steady decline which continued throughout most of 1926. Wholesale prices decreased in each month of 1926 except May, June, and September, and the total decline for the year amounted to nearly 6 per cent. The index number for December was 147.2, which was lower than that for any month since July, 1924, and was about 8½ per cent below the 1925 peak. The wholesale price average for the year 1926 as a whole was 151, as against 158.7 for 1925, but was slightly higher than the average for 1924.

Wholesale Prices by Commodity Groups.

Considerable differences in price movement appear among the nine major groups of commodities making up the general index (Table 3), although the index for every group except fuels was less in 1926 than in 1925. The greatest decreases took place in the indexes for farm products, cloths and clothing, and miscellaneous commodities. Farm products averaged 10 per cent lower than in 1925 owing to drastic declines in cotton and grain prices, while clothing prices decreased 7 per cent in consequence of the slackening in demand for many types of textile products. The decline in the miscellaneous group was largely owing to the fall in the price of rubber from the extraordinarily high point which it reached in 1925. The indexes for all other groups except fuel averaged considerably lower in 1926. The fuel index increased on account of the large foreign demand for coal which resulted from the British strike.

Of the groups included in the index of farm products, clothing, chemicals, house furnishings, and miscellaneous products showed a downward movement throughout most of 1926. Metals, building materials, and food products receded in the spring or early summer and showed little change in level during the remainder of the year. Fuel prices, after declining to the low point for the year in April, advanced over 9 per cent and reached a peak in November. December prices for all commodity groups, except fuels, were at close to the low point for the year.

Chart II.—MONTHLY INDEXES OF WHOLESALE PRICES, BY MAJOR COMMODITY GROUPS

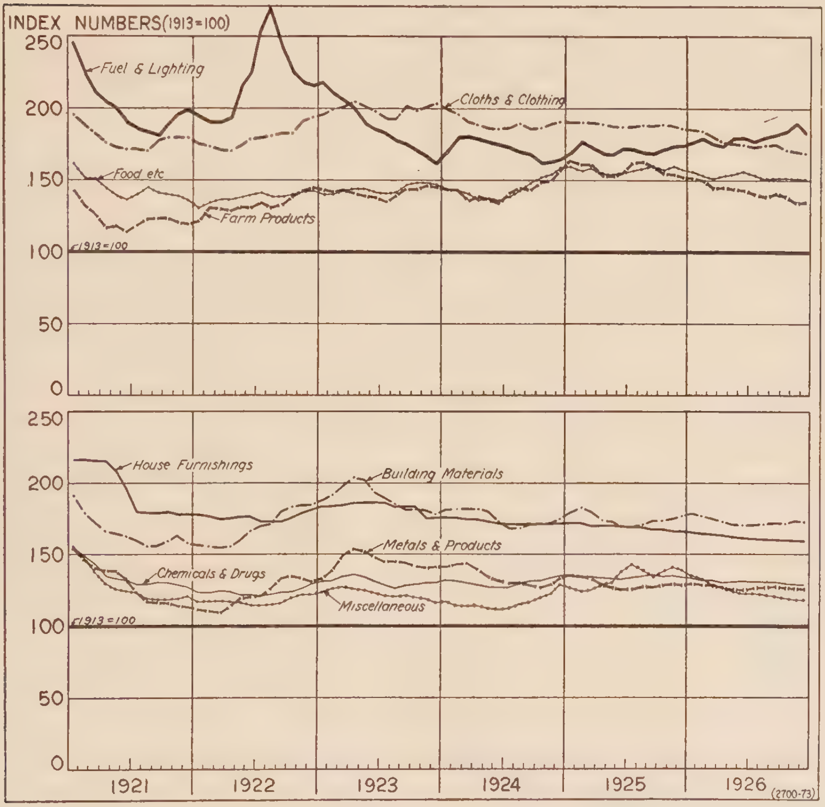


Table 3. —Wholesale Price Index Numbers, by Major Commodity Groups

[Index numbers based on 1913=100. An asterisk (*) indicates the minimum and a dagger (†) the maximum month of the given year]

Year, quarter, or month	All commodities	Farm products	Food products	Cloths and clothing	Fuels	Metals and products	Building materials	Chemicals and drugs	House furnishings	Miscellaneous
1920	226.2	217.9	219.7	295.5	241.4	191.7	264.1	199.7	253.8	195.5
1921	146.9	123.7	144.0	179.5	199.4	129.0	165.4	135.6	195.1	128.1
1922	148.8	133.3	138.4	180.8	217.5	122.0	168.4	124.2	175.8	117.5
1923	153.7	141.2	143.8	200.1	185.1	144.4	189.1	131.0	183.1	122.7
1924	149.7	143.4	144.2	190.9	170.3	134.5	175.1	130.4	172.8	116.7
1925	158.7	158.1	157.5	189.6	174.7	129.9	175.1	134.4	169.2	134.7
1926	151.0	142.2	152.9	175.9	179.9	126.7	173.4	130.6	161.8	123.9
1923										
January-March	157.0	142.6	141.5	198.9	212.2	140.4	192.6	132.7	184.4	125.6
April-June	156.1	139.2	143.6	201.4	192.0	151.3	200.0	133.8	186.7	124.7
July-September	151.5	139.1	143.4	195.8	179.0	144.7	185.8	127.9	184.0	120.6
October-December	152.1	144.7	147.8	201.0	167.1	141.5	180.5	129.8	178.4	118.1
1924										
January-March	150.9	141.5	142.4	195.8	176.5	142.8	181.7	130.9	175.5	114.3
April-June	146.6	136.3	136.4	187.7	176.9	135.1	178.2	127.4	173.0	112.1
July-September	148.5	143.1	143.5	188.0	170.3	129.7	169.6	129.1	171.0	114.4
October-December	153.9	151.8	154.4	190.1	163.2	129.6	172.5	133.6	171.8	123.8
1925										
January	160.0	†163.4	159.8	†191.1	*167.9	†136.3	179.3	135.2	†172.6	127.1
February	†160.6	161.5	156.9	191.0	†177.5	135.6	†182.8	134.5	172.5	*124.5
March	161.0	161.3	158.9	190.7	174.4	133.7	179.8	134.2	170.1	125.4
April	156.2	153.0	154.0	189.9	169.0	128.7	174.4	133.6	170.5	128.8
May	*155.2	*151.9	*153.2	188.4	168.2	127.2	173.6	133.1	170.5	131.3
June	157.4	155.4	155.3	188.2	172.6	*126.1	170.7	*132.8	169.9	137.8
July	159.9	161.8	157.3	188.8	172.1	126.4	*170.1	133.3	169.2	†143.4
August	160.4	163.1	159.2	189.7	170.0	127.3	172.4	134.6	169.2	137.9
September	159.7	160.4	†160.3	189.3	169.3	127.2	174.1	†135.6	167.6	134.9
October	157.6	155.3	157.6	189.5	171.7	127.9	173.9	134.9	167.9	138.0
November	157.7	153.9	160.2	187.9	174.8	129.8	175.6	135.4	*165.9	142.0
December	156.2	152.2	157.1	*187.1	174.8	129.5	177.0	134.5	*165.9	138.2
1926										
January	†156.0	†151.8	†156.2	†185.5	176.5	†128.9	†177.9	†133.2	†164.9	†135.3
February	155.0	149.9	153.2	183.9	179.4	128.4	177.1	132.3	163.9	132.9
March	151.5	144.0	151.4	180.5	175.1	127.7	175.5	131.6	163.9	128.3
April	151.1	144.9	153.2	176.8	*174.0	126.5	173.2	130.3	163.4	126.5
May	151.7	144.2	153.8	176.1	178.7	125.2	171.6	130.7	162.2	124.7
June	152.3	143.7	156.6	175.1	179.2	*125.1	*171.2	131.1	161.7	122.5
July	150.7	140.8	153.6	173.3	177.0	126.2	171.5	130.9	161.1	122.5
August	149.2	137.9	*150.8	174.7	179.5	126.6	171.8	130.8	160.8	121.8
September	150.5	141.1	152.0	175.2	182.0	127.0	172.4	130.8	160.4	120.4
October	149.7	138.4	152.0	171.5	184.4	126.7	172.1	129.3	160.3	118.6
November	148.1	*134.6	151.1	169.9	†190.2	126.5	174.0	128.5	159.9	*117.7
December	*147.2	134.9	151.0	*168.6	182.9	125.7	172.7	*128.2	*159.4	117.8

Source: Bureau of Labor Statistics, Department of Labor.

The movement of the subgroups (Table 4) was less uniform than that of the main groups. Prices of grains, "other farm products" which is dominated by raw cotton, cotton goods, cattle feed, and "other miscellaneous products" which is largely influenced by rubber, all showed decreases of over 10 per cent, while prices of woolen goods, silks, chemicals, furniture, house furnishings, and leather were also substantially lower. Among the subgroups which showed increases in 1926 were anthracite and bituminous coal, "other fuel" which consists largely of petroleum, fertilizer materials, and drugs.

Most of the decrease in the prices of grains, "other farm products," woolen goods, cattle feed, and "other miscellaneous products" occurred in the first half of the year, while prices of cotton goods and silks which also decreased in the first half showed a further sharp decline in the last quarter. Prices of livestock and poultry, meats, "other fuel," drugs, and paper and pulp increased during the first half of 1926 but declined in the latter part of the year.

Table 4.—Indexes of Wholesale Prices of Commodity Subgroups

NOTE.—Each of the 9 groups covered by Table 3 is divided into from 2 to 4 subgroups.

[1913=100]

Subgroup	Year							December, 1925	March, 1926	June, 1926	September, 1926	December, 1926
	1920	1921	1922	1923	1924	1925	1926					
Grains	256	134	124	125	141	172	148	165	152	145	139	142
Livestock and poultry	175	108	116	110	112	140	135	131	134	144	141	129
Other farm products	241	134	154	179	174	167	144	166	148	142	141	136
Meats	180	134	130	123	129	155	154	151	150	164	157	147
Butter, cheese, and milk	194	145	133	152	140	148	149	156	148	143	150	159
Other foods	247	149	144	151	153	162	155	162	154	159	151	152
Boots and shoes	278	205	181	183	182	186	185	187	186	186	184	184
Cotton goods	329	159	172	199	195	181	160	176	167	159	161	147
Woolen goods	301	179	184	211	209	213	194	207	201	193	189	189
Silks, etc	235	165	194	219	163	172	159	180	162	158	162	148
Anthracite	183	204	206	212	222	218	226	(1)	232	223	225	227
Bituminous coal	271	243	310	248	206	201	206	207	200	196	202	222
Other fuel	247	178	170	144	139	144	154	142	146	160	161	149
Iron and steel	219	148	135	162	149	138	135	137	136	134	135	135
Nonferrous metals	129	86	92	104	101	111	108	113	109	106	111	105
Lumber	308	164	183	207	183	185	185	190	189	183	182	185
Brick	279	232	202	214	213	206	205	205	206	204	205	204
Structural steel	187	135	115	160	148	133	130	129	129	123	132	132
Other building materials	218	169	156	169	167	167	163	167	163	161	164	161
Chemicals	197	128	112	118	123	127	118	125	118	119	119	115
Fertilizer materials	215	126	112	111	98	107	109	110	115	108	108	105
Drugs and pharmaceuticals	193	165	167	183	180	180	183	182	182	184	183	182
Furniture	237	181	163	166	153	149	142	145	144	141	140	140
House furnishings	311	241	219	241	237	235	228	233	231	228	227	223
Cattle feed	222	105	128	143	131	134	116	128	113	111	110	123
Leather	267	156	146	145	137	145	137	140	140	136	136	136
Paper and pulp	296	190	155	168	168	176	172	170	180	175	164	158
Other miscellaneous	140	105	96	99	93	120	107	130	112	105	105	100

[1] Insufficient data.

Source: Bureau of Labor Statistics, Department of Labor.

Prices of Individual Commodities.

Even the subdivision of commodities into as many as 28 subgroups fails to bring out some of the main disparities in price movement as among major individual commodities (Table 5), although there were fewer of those disparities in 1926 than in most recent years. Prices of all kinds of grain, many of which had risen in 1925, showed marked decreases in 1926, the greatest being the decrease in the price of corn. Wheat prices were considerably lower than in 1925, but averaged higher than in any other year since 1920. The price of cotton declined throughout the year with an exceptionally sharp drop in the last quarter. Its average price in 1926 was 25 per cent lower than in 1925 and 40 per cent lower than in 1923. In December cotton declined to the same average price as in the year 1913.

Table 5.—Indexes of Wholesale Prices of Leading Individual Commodities

NOTE.—Each item represents some specific grade or type of the commodity specified, at some particular market, these having been selected in certain cases from among several grades, types, or markets, quoted by the Bureau of Labor Statistics. An exception occurs in the case of anthracite and bituminous coal, for which the figures here given represent averages of several grades and markets.

[1913=100]

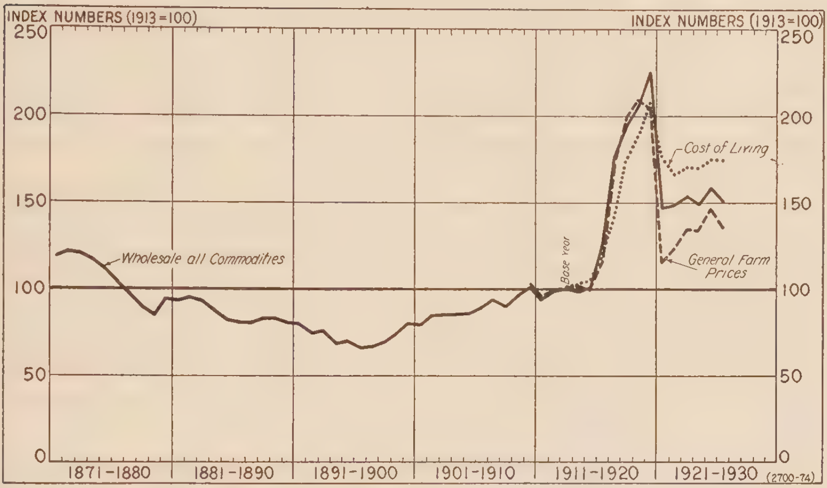
Commodity	Year							December, 1925	March, 1926	June, 1926	September, 1926	December, 1926
	1920	1921	1922	1923	1924	1925	1926					
Wheat, spring	293	168	154	135	148	184	177	193	180	182	162	163
Wheat, winter	256	146	126	119	130	179	156	182	170	150	138	142
Corn	226	93	100	131	155	166	121	127	119	114	127	121
Oats	212	103	105	117	137	124	115	112	110	108	113	134
Barley	202	102	101	106	131	135	111	115	106	109	107	119
Rye	294	191	139	118	144	177	150	163	133	143	152	152
Tobacco, Burley	259	222	208	210	197	188	170	189	189	159	159	159
Cotton, middling	265	118	166	229	225	183	137	158	152	145	133	100
Wool, scoured	206	108	166	208	212	212	181	201	190	171	175	179
Cattle, steers	170	103	111	117	114	125	112	118	114	113	120	114
Hogs, heavy	170	101	112	92	102	146	148	130	137	167	148	141
Lambs	204	129	169	173	184	195	176	205	163	207	177	155
Flour, standard patents	277	182	159	139	157	193	184	200	192	189	169	167
Sugar, 96°, raw	372	135	133	200	170	124	124	118	115	118	127	146
Sugar, granulated	297	144	139	198	174	128	128	123	116	127	132	143
Cottonseed oil	212	109	139	155	149	149	163	146	166	215	155	113
Beef, fresh carcass	178	126	116	122	132	139	127	131	124	124	126	131
Pork, smoked hams	201	161	159	127	122	163	185	168	177	205	193	169
Cotton yarns	284	134	161	196	192	169	145	162	155	141	148	126
Cotton print cloth	364	149	190	217	198	190	151	177	164	146	151	135
Cotton sheeting	344	142	168	200	184	170	151	167	160	152	152	130
Worsted yarns	235	152	182	223	218	222	185	200	193	180	180	180
Women's dress goods, wool	238	157	149	182	184	187	190	193	192	192	186	184
Suitings, wool	271	190	201	235	237	237	220	233	227	213	213	213
Silk, raw, Japanese	227	166	198	226	163	174	163	187	166	162	168	154
Hides, green, salted	170	76	98	91	80	87	76	85	66	72	82	82
Calfskins	195	79	85	83	97	107	92	102	90	89	94	89
Leather, sole	191	122	116	113	100	107	98	103	103	96	96	96
Leather, chrome calf	366	193	164	164	169	175	168	171	171	167	167	167
Boots and shoes, men's black, calf	288	225	209	206	201	205	206	206	206	206	206	206
Coal, bituminous	271	243	310	248	206	201	206	207	200	196	202	222
Anthracite	183	204	206	212	222	218	226	(1)	232	223	225	227
Coke, Connellsville	476	150	305	228	145	166	168	182	134	116	143	160
Petroleum, crude	364	185	192	154	155	179	202	166	193	219	219	187
Pig iron, foundry	281	157	169	176	141	135	129	139	139	123	121	128
Steel billets	218	133	132	162	147	138	136	136	136	136	136	136
Copper ingots	114	80	85	92	83	89	88	88	88	87	89	85
Lead, pig	184	104	132	168	188	207	192	211	193	183	200	178
Tin, pig	112	67	72	95	112	129	146	140	144	135	154	152
Zinc slab	139	88	104	120	115	137	132	154	132	128	133	127
Lumber, pine, yellow	233	156	197	207	182	202	196	216	208	194	186	179
Lumber, Douglas fir	325	129	166	211	187	187	179	168	179	179	179	183
Brick, common red	279	232	202	214	213	206	205	205	206	204	205	204
Cement, Portland	197	186	174	181	177	172	168	168	168	168	168	167
Steel, structural	187	135	115	160	148	133	130	129	129	123	132	132
Rubber, Para	41	23	23	31	26	71	47	95	56	43	42	32
Sulphuric acid	112	91	76	73	71	70	73	70	70	75	75	75

[1] Insufficient data.

Source: Bureau of Labor Statistics, Department of Labor.

Prices of lamb declined about one-fourth in the last half of the year and prices of hogs, which advanced considerably during the early part of the year, showed a somewhat less marked decline during the third and fourth quarters. Cattle prices showed less pronounced changes from month to month than those of other meat animals, but averaged about 10 per cent lower than in 1925. The prices of both raw and granulated sugar which declined during the first quarter, showed a steady upward movement during the remainder of the year, and averaged exactly the same as in 1925. Sugar prices at the end of 1926 were substantially higher than a year earlier. Quotations for cottonseed oil soared during the first half of 1926, but later declined sharply and ended the year at a very low level.

Chart III.—**COMPARATIVE ANNUAL INDEXES OF WHOLESALE PRICES, FARM PRICES, AND COST OF LIVING**



Prices of cotton textiles showed a decided downward trend throughout 1926, which corresponded closely to the movement of raw cotton. Silk prices also declined throughout most of the past year, while there was a somewhat less marked decrease in the quotations for various woolen textiles. Hide and leather prices which have been at a very low level throughout most of the postwar period showed a small decline in 1926, while shoe prices were practically unchanged.

Quotations for coal and coke declined in the first half of 1926, but were substantially higher in the latter part of the year as a result of the large foreign demand and the sustained activity of the domestic steel industry. Petroleum prices on the other hand advanced sharply in the first half of the year, but later fell off, as a result of increased stocks. Prices of all the principal metals except tin and of the more important building materials averaged somewhat lower than in 1925, but their movement during the year was less pronounced than that of most other commodities. Rubber quotations which were at a very high level at the beginning of 1926 declined sharply, and December averaged only about one-third as high as a year earlier.

It should be noted in considering Tables 4 and 5 that the index numbers are based on the single year 1913, and that certain individual items were more or less out of line with their usual relations to other prices. Consequently, the relative increases from 1913 to any given postwar year do not in some cases accurately reflect the broader changes in price levels; for example, the wheat index would appear about 8 per cent lower if based on 1910–1914 instead of on 1913. Indexes for cotton on the other hand would be higher if based on the 1910–1914 period.

In spite of these qualifications it is still evident that there have been marked changes in relationship of groups and individual commodities when one compares their present prices with the pre-war period. Among the subgroups the year 1926 shows prices of coal, brick, and house furnishings more than twice as high as in 1913, while prices of nonferrous metals, chemicals and fertilizer materials, cattle, food, and "other miscellaneous products" were less than 30 per cent higher than before the war.

Among the individual commodities listed prices of wool suitings, shoes, bituminous and anthracite coal, crude petroleum, and brick were over 100 per cent higher than in 1913, while quotations for hides, calfskins, sole leather, copper, rubber, and sulphuric acid were actually lower than before the war. It should be noted, however, in the case of rubber, that the immense increase in output and the complete change in methods of production account for the reduction or more than one-half in its price level.

Comparison for the past four or five years shows that the dispersion between the group indexes is gradually diminishing, since prices are gradually getting back to a relationship which more nearly corresponds to that existing before the war. Among the 28 subgroups there was in 1922 a spread from a maximum of 310 to a minimum of 92, which has diminished year by year and in 1926 was reduced to a range of 228 to 107. In 1922 the highest index among the individual articles shown in Table 5 was 310 and the lowest, apart from rubber, 72, while in 1926 the highest was 226 and the lowest, apart from rubber, was 73.

The Longer Swing of Prices.

The yearly movement of wholesale prices for the entire period since 1890, for which the present system of index numbers has been computed, is shown in Table 6, together with five-year averages for the period from 1860 to 1889, inclusive, which were based on the so-called Aldrich Report of 1893. The year 1913, used as the base for these index numbers, was fairly typical of the period which immediately preceded the war, but the price level at that time stood much higher than during the closing years of the last century or the early years of the present century. Broadly speaking, prices declined materially from the Civil War period, when they had been inflated by large paper-money issues, until about 1897, after which they advanced gradually as the result of increasing world production of gold and greatly expanded credit facilities until the outbreak of the war. The general index in 1926 was over twice as high as in 1897, and was over 50 per cent higher than in 1913. Prices of farm products showed a more marked advance than most other groups in the period from 1890 to 1913.

Chart IV. -ANNUAL INDEXES OF WHOLESALE PRICES, BY COMMODITY GROUPS

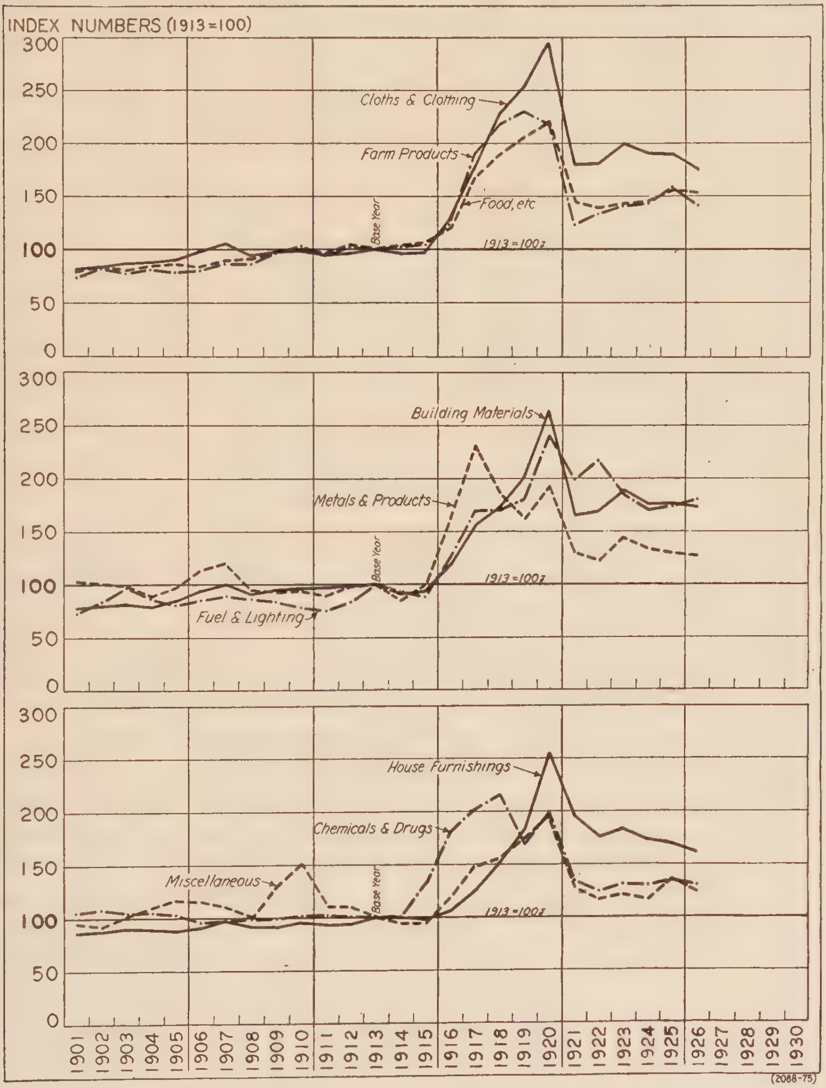


Table 6.—Indexes of Wholesale Prices—General Average and Major Commodity Groups

[1913=100]

Year	General index	Year	General index	Year	General index	Year	General index	Year	General index
1860-1864	115	1893	76.6	1902	84.4	1911	93.0	1920	226.2
1865-1869	157	1894	68.7	1903	85.5	1912	99.1	1921	146.9
1870-1874	121	1895	70.0	1904	85.6	1913	100.0	1922	148.8
1875-1879	95	1896	66.7	1905	86.2	1914	98.1	1923	153.7
1880-1884	92	1897	66.8	1906	88.6	1915	100.8	1924	149.7
1885-1889	82	1898	69.6	1907	93.5	1916	126.8	1925	158.7
1890	80.5	1899	74.9	1908	90.1	1917	177.2	1926	151.0
1891	80.0	1900	80.5	1909	96.9	1918	194.3		
1892	74.8	1901	79.3	1910	100.9	1919	206.4		

Year	Farm products	Foods	Cloths and clothing	Fuel and lighting	Metals and products	Building materials	Chemicals and drugs	House furnishing goods	Miscellaneous	All commodities
1891-1895	67.4	79.7	85.7	59.3	85.7	72.6	87.7	83.6	92.1	74.0
1896-1900	62.3	73.4	79.1	63.8	88.0	72.5	94.0	79.4	96.8	71.7
1901-1905	78.4	82.5	85.8	84.8	97.6	80.9	105.1	88.4	103.4	84.2
1906-1910	90.7	92.4	98.8	84.7	103.1	95.9	99.0	93.6	122.0	94.0
1911-1915	100.2	101.4	97.8	88.2	94.4	96.4	107.4	97.5	102.3	98.2
1916-1920	195.9	180.6	215.7	177.4	186.7	183.0	193.4	164.3	159.1	186.2
1921-1925	139.9	145.6	188.2	189.4	132.0	174.6	131.1	179.2	123.9	151.6
1926	142.2	152.9	175.9	179.9	126.7	173.4	130.6	161.8	123.9	151.0

Source: Bureau of Labor Statistics, Department of Labor.

FOREIGN WHOLESALE PRICES

Comparison of price movements in foreign countries with those of the United States is made difficult in a number of cases by the inflation of their currency and the variation in the rate of exchange for dollars. In certain countries, such as France, Italy, and Rumania, present prices in terms of local currency are many times higher than before the war, but this increase is in large part the result of the greater volume of paper currency outstanding. If these paper money prices are converted to terms of dollars on the basis of current exchange rates the resultant figures, while they show approximately how much the dollar would buy, may by no means represent the change in prices as it actually affects the purchasing power of the people of the country. Such rates are often subject to influences which do not similarly affect internal prices. In the years immediately after the war the currencies of most of the principal countries of Europe fluctuated widely. During the past few years, however, one after another of these countries has stabilized its currency and exchange rates so that at the present time only a few currencies continue to show sharp fluctuations. The currencies of the United Kingdom, Germany, Netherlands, Sweden, and Denmark have been restored to their pre-war parities with the dollar, while the gold value of the currency units of Belgium, Austria, and Hungary has been changed and these currencies also have been stablized.

Table 7 shows wholesale price indexes on a 1913 or 1914 base for a number of the principal countries. These indexes differ materially as regards the number, character, and weighting of the articles covered and for that, as well as the reason above mentioned, they may not in all cases reflect accurately the relationship of general price movements as between the several countries.

Table 7.—Comparative International Indexes of Wholesale Prices

[1913 or 1914=100]

Period	United States	United Kingdom	France	Italy	Sweden	Switzerland	Canada	Japan	Australia	India (Calcutta)	Germany
1920	226	307	509	631	359	-------	244	259	218	204	-------
1921	147	197	345	577	222	197	172	200	167	181	-------
1922	149	159	327	562	173	168	152	196	154	180	[1] 84
1923	154	159	419	575	163	180	153	199	170	176	95
1924	150	166	489	585	162	176	155	206	165	178	122
1925	159	160	551	690	161	163	160	202	162	164	130
1926	151	148	703	709	149	148	156	179	161	148	125
1924											
January-March	151	166	512	574	162	182	156	208	170	176	118
April-June	147	164	458	572	160	180	151	204	165	175	121
July-September	149	165	481	573	160	171	155	200	162	179	121
October-December	154	170	503	621	167	169	159	213	164	179	130
1925											
January-March	161	169	514	659	169	171	164	209	162	170	136
April-June	156	160	525	667	162	164	158	200	160	163	132
July-September	160	157	557	720	159	160	158	200	162	158	131
October-December	157	154	603	714	155	158	160	197	163	162	122
1926											
January-March	154	148	634	702	151	154	162	188	161	155	119
April-June	152	145	692	700	150	147	158	178	166	147	124
July-September	150	150	797	732	147	146	154	177	161	146	127
October-December	148	150	687	701	149	147	151	172	155	145	131
December, 1925	156	152	633	715	156	157	164	194	160	159	122
December, 1926	147	146	627	681	150	148	151	170	155	146	131

[1] Average of last month of each quarter of 1922.

Sources: Compiled from original foreign sources by Federal Reserve Board and the Department of Labor.

All of these countries, except France and Italy, showed a decrease in average price level during the year 1926. Most of these decreases ranged from 5 to 10 per cent and indicate that there was a substantial decline in the world price level during the past year. Prices in Japan decreased over 10 per cent, reflecting not only this general movement, but also an appreciation in the value of the yen.

The decline of over 7 per cent in the average prices of the United Kingdom was partly a result of the stagnation of business caused by the prolonged coal strike. Prices in Germany, though averaging slightly lower than in 1925, were actually rising during most of the year, but this was owing largely to the advance in a few agricultural staples and the fact that German prices are still relatively lower than those of most other countries of the world.

The increases in the French and Italian prices resulted chiefly from fluctuations in the exchange value of the currency. Prices in France during 1926 averaged 28 per cent higher than in 1925, but this great advance was caused entirely by the sharp decline in the value of the franc last summer. The value of the franc increased in the fall and prices declined, the indexes at the end of the year being slightly lower than at the end of 1925. Italian prices averaged 3 per cent higher in 1926 than in the previous year but the index for December was about 5 per cent lower than in December, 1925. The increase in the yearly average was caused by higher prices in the summer months which resulted from a sharp decline in the exchange value of the lira. The lira advanced in the fall and prices declined to much lower levels. For variations in the exchange rates of leading countries during recent years, see the section on Finance and Banking.

FARMERS' PRICES

The Department of Agriculture compiles each month weighted averages of prices which farmers receive at the farm for their principal products throughout the United States. These are combined, with due weighting, into indexes of price movements. The general farm price index is shown in Tables 1 and 2 and the indexes for the groups making up the total are shown in the table on page 179, where a more detailed discussion of farm prices is also presented.

The movements of farm prices are roughly parallel to those of the wholesale prices of farm products in central markets already discussed. The level of the farm price index as compared with its pre-war base, however, is lower than that of the index of wholesale prices of farm products. This is in part owing to differences in method of weighting and in part to the fact that freight charges and marketing costs are considerable factors in the prices of farm products in central markets, and that these did not decline much at the time of the general postwar fall in prices. The average index of farm prices for 1926 was 136 (base 1910–1913 as 100), as compared with 147 in 1925, 134 in 1924, 116 in 1921, and 209 in 1919, the maximum yearly average. The index which stood at 143 in December, 1925, decreased steadily during 1926 to 127 in December, the lowest it had been since November, 1922.

The general farm price index, however, fails to bring out the marked differences in movement among different classes of farm products, or the differences in their levels as compared with pre-war years. The farm prices of the grain group showed, for 1926 as a whole, an increase of 29 per cent over the average for 1910–1914, the fruit and vegetable group increased about 89 per cent, meat animals 46 per cent, dairy and poultry products 41 per cent, cotton and cottonseed 26 per cent, while unclassified articles showed a decrease of 12 per cent owing to the great decrease in the price of horses. Average prices for the year 1926 were much lower than for

1925, in the case of grains and of cotton and cottonseed. The index for farm prices of fruits and vegetables was 29 per cent and that for cotton and cottonseed 42 per cent lower in December, 1926, than in the corresponding month of 1925. On the other hand, the index for meat animals was 3 per cent higher at the end of 1926.

RETAIL PRICES AND COST OF LIVING

Retail prices tend to change somewhat less rapidly than wholesale prices of similar articles. Food prices are collected by the Department of Labor from retail dealers each month, but only semiannual (formerly quarterly) figures are collected as to other commodities entering into the general cost of living index.

Food Prices.

There is usually a fairly close parallelism in movement between retail and wholesale prices of food. (Tables 1, 2, and 8.) Retail prices, however, did not reach as high a peak in 1920 as wholesale, nor fall to as low a point in 1921. Furthermore, retail food prices showed a considerable divergence from wholesale prices in 1926; retail prices advanced 2 per cent, while wholesale prices averaged 3 per cent lower than in 1925. Retail prices receded during the first three quarters of the year, but advanced during the last quarter, whereas the wholesale index declined in the first quarter, advanced in the second quarter, and then declined during the remainder of the year.

Table 8.—Comparative Indexes of Food Prices, Wholesale and Retail

[Index numbers based on 1913=100]

Year and month	1921		1922		1923		1924		1925		1926	
	Wholesale	Retail	Wholesale	Retail	Wholesale	Retail	Wholesale	Retail	Wholesale	Retail	Wholesale	Retail
Year	144.0	153	138.4	142	143.8	146.2	144.2	145.9	157.5	157.4	152.9	160.6
March	151.2	156	136.7	139	143.2	141.9	140.8	143.7	158.9	151.1	151.4	159.9
June	137.2	144	140.4	141	142.0	144.3	135.6	142.4	155.3	155.0	156.6	159.7
September	142.3	153	137.9	140	147.3	149.3	147.7	146.8	160.3	159.0	152.0	158.5
December	135.7	150	144.6	147	146.9	150.3	157.9	151.5	157.1	165.5	151.0	161.8

Source: Bureau of Labor Statistics, Department of Labor.

General Cost of Living Index.

The general index of the cost of living represents retail prices in 32 large cities; it is possible that the movement in smaller cities and towns is slightly different. As against 177.9 for December, 1925, the cost of living index was 174.8 in June and 175.6 in December, 1926. Although the index was lower at the end of 1926 than a year earlier, it was higher than at any other time since May, 1921. (Table 9.)

Table 9.—Index Numbers of Cost of Living in 32 Cities

[1913=100]

Period	Total	Food	Clothing	Housing	Fuel and light	Furniture, house furnishings	Miscellaneous
1914, December	103. 0	105. 0	101. 0	100. 0	101. 0	104. 0	103. 0
1915, December	105. 1	105. 0	104. 7	101. 5	101. 0	110. 6	107. 4
1916, December	118. 3	126. 0	120. 0	102. 3	108. 4	127. 8	113. 3
1917, December	142. 4	157. 0	149. 1	100. 1	124. 1	150. 6	140. 5
1918, December	174. 4	187. 0	205. 3	109. 2	147. 9	213. 6	165. 8
1919, December	199. 3	197. 0	268. 7	125. 3	156. 8	263. 5	190. 2
1920, June	216. 5	219. 0	287. 5	134. 9	171. 9	292. 7	201. 4
1920, December	200. 4	178. 0	258. 5	151. 1	194. 9	285. 4	208. 2
1921, May	180. 4	144. 7	222. 6	159. 0	181. 6	247. 7	208. 8
1921, December	174. 3	149. 9	184. 4	161. 4	181. 1	218. 0	206. 8
1922, quarterly average	167. 3	141. 5	172. 7	161. 2	180. 0	205. 1	201. 6
1923, quarterly average	171. 0	146. 5	175. 5	164. 2	183. 0	221. 2	200. 9
1924							
March	170. 4	143. 7	175. 8	167. 0	182. 2	221. 3	201. 1
June	169. 1	142. 4	174. 2	168. 0	177. 3	216. 0	201. 1
September	170. 6	146. 8	172. 3	168. 0	179. 1	214. 9	201. 1
December	172. 5	151. 5	171. 3	168. 2	180. 5	216. 0	201. 7
1925							
June	173. 5	155. 0	170. 6	167. 4	176. 5	214. 3	202. 7
December	177. 9	165. 5	169. 4	167. 1	186. 9	214. 3	203. 5
1926							
June	174. 8	159. 7	168. 2	165. 4	180. 5	210. 4	203. 3
December	175. 6	161. 8	166. 7	164. 2	188. 3	207. 7	203. 9

Source: Bureau of Labor Statistics, Department of Labor.

The advance in the cost of living index in 1925 and 1926 over the previous three years was attributable primarily to the advance in retail food prices, food having a large weight in the index. Also the index for fuel and lighting was high in December of both the last two years. The indexes for clothing, housing, and furniture decreased slightly, while that for miscellaneous commodities remained about the same. As compared with pre-war years the increases in retail prices of furniture and miscellaneous commodities have been substantially higher than those of food, clothing, and housing.

The fact that the general index of the cost of living stands much higher compared with the 1913 base than the general index of wholesale prices is not necessarily due wholly, or even in large part, to increased cost of retail distribution. Many commodities covered by the wholesale price index enter little or not at all into retail trade, and the wholesale prices of such commodities have, on the whole, risen less than the wholesale prices of articles commonly distributed through retail channels. This fact is brought out by a comparison of the several groups of commodities making up each of the indexes. (Table 10.) Such a comparison can not be close since the items entering into a given retail group are not exactly the same nor subject to the same weighting as those entering into the nearest corresponding wholesale group; indeed there is no comparability between the wholesale and retail indexes with respect to the miscellaneous group, which is very differently constituted. It will be seen that with respect to food products, cloths and clothing, fuel and lighting, and building materials, no very great difference as to increase over pre-war levels appears between the wholesale and the retail index, but the retail index for house furnishings shows a much greater advance than the wholesale index for such furnishings.

Table 10.—Comparison of Indexes of Wholesale Prices and Cost of Living (Retail Prices), by Nearest Similar Group

[1913=100]

Year	All commodities	Farm products	Food products	Cloths and clothing	Fuel and lighting	Metals and products	Building materials [1]	Chemicals and drugs	House furnishings
1920—Wholesale	226. 2	217. 9	219. 7	295. 5	241. 4	191. 7	264. 1	199. 7	253. 8
Retail	208. 5		198. 5	273. 0	183. 4		143. 0		289. 1
1921—Wholesale	146. 9	123. 7	144. 0	179. 5	199. 4	129. 0	165. 4	135. 6	195. 1
Retail	177. 3		149. 2	199. 7	181. 1		160. 1		230. 1
1922—Wholesale	148. 8	133. 3	138. 4	180. 8	217. 5	122. 0	168. 4	124. 2	175. 8
Retail	167. 3		141. 5	172. 7	180. 0		161. 2		205. 1
1923—Wholesale	153. 7	141. 2	143. 8	200. 1	185. 1	144. 4	189. 1	131. 0	183. 1
Retail	171. 0		146. 5	175. 5	183. 0		164. 2		221. 2
1924—Wholesale	149. 7	143. 4	144. 2	190. 9	170. 3	134. 5	175. 1	130. 4	172. 8
Retail	170. 7		146. 1	173. 4	179. 8		167. 8		217. 1
1925—Wholesale	158. 7	158. 1	157. 5	189. 6	174. 7	129. 9	175. 1	134. 4	169. 2
Retail	175. 7		160. 3	170. 0	181. 7		167. 3		214. 3
1926—Wholesale	151. 0	142. 2	152. 9	175. 9	179. 9	126. 7	173. 4	130. 6	161. 8
Retail	175. 2		160. 8	167. 5	184. 4		164. 8		209. 1

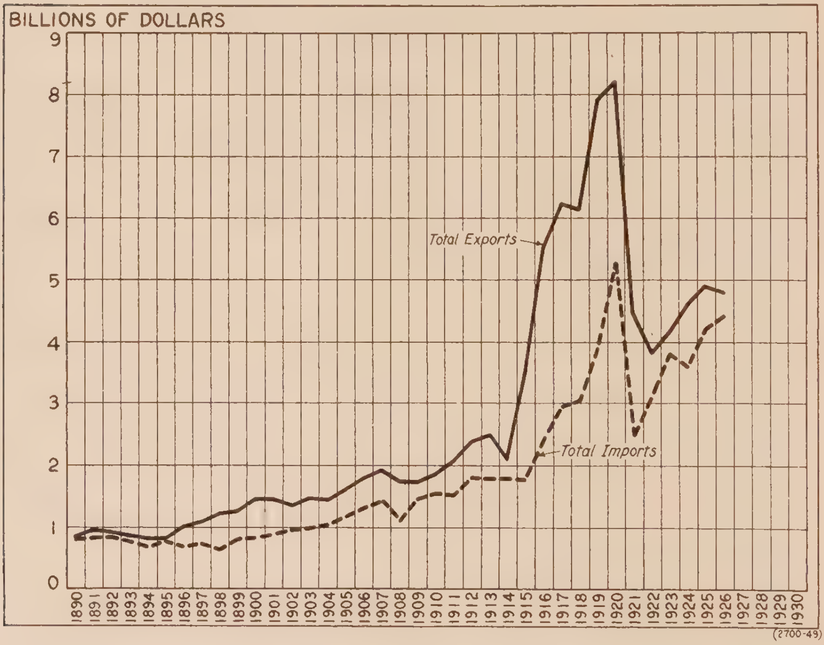
[1] Retail index represents rent of houses and apartments.

Source: Bureau of Labor Statistics, Department of Labor.

FOREIGN TRADE OF THE UNITED STATES

SUMMARY.—The year 1926 was a satisfactory one in our foreign trade. It witnessed a continuance of that steady upward trend in exports of finished manufactures which has so conspicuously characterized out trade history for a number of decades past and more particularly during the postwar years. Agricultural exports affected by fluctuations in crops and in prices, fell off somewhat in value, with the result that the total value of all exports declined by about 2 per cent. This slight decline, however, is more than explained by price changes; eliminating the effect of these, an increase of about 6 per cent appears in the quantities of the various commodities sold abroad. This is a highly satisfactory showing.

Chart I.—MERCHANDISE EXPORTS AND IMPORTS, 1890–1927



(2700-49)

Imports in 1926 were greater in dollar value than in any other year except 1920, and, after allowing for differences in price levels, decidedly the greatest in our history. The average prices of imports declined in 1926 as compared with the year preceding, so that the increase in quantity was even greater than the increase in value.

The excess in exports over imports during the year just closed was $378,000,000, only slightly exceeding the balance of 1923 and much below the average balance of recent years. Notwithstanding this fact, there was a net inward movement of gold and also an increase in the new placements of American capital in foreign countries as well as in tourist expenditures.

The most striking changes in the export trade of 1926 were the sharp fall in the price of cotton, the large increases in exports of coal, petroleum products, and wheat, and the very general gains in exportation of manufactured articles. The total value of exports of finished manufactures last year reached the huge sum of $1,956,000,000, an increase of 6 per cent over 1925, and of no less than 51 per cent over 1922. Even after allowing for the difference in price levels, the 1926 exports of this class of commodities were at least double those of the years immediately preceding the World War.

As might be expected from the decline in the value of our agricultural exports in 1926, exports to Europe fell off considerably, and for the first time in many years were less than one-half of the total to the entire world. There was also some decrease in our exports to the Latin countries of North America, resulting from the disturbed conditions in Mexico and still more from the reduced price of sugar, which lowered the buying power of Cuba and other countries of that region. On the other hand, our shipments to all other continents and regions of the world showed decided gains. Particularly gratifying was the increase of nearly one-fifth in exports to Asia, which after allowing for differences in price levels, were greater in 1926 than in any other year of our history. Our sales to South America, Oceania, and Africa continued their steady upward movement, the gain in the case of South America being 10 per cent. Sales to Canada also reached record figures.

Increases in imports were very generally distributed among the different classes of commodities. The high prosperity of the country and general activity of business resulted in large purchases of tropical foodstuffs and of tropical and other exotic raw materials. Imports of rubber, which have become the largest single item, increased by 4 per cent in quantity and 18 per cent in value. There was a slight decline in the value of silk imports, owing to lower prices, but coffee imports reached unprecedented figures both in quantity and value. Imports of sugar were also the greatest ever reported, but on account of the lower price the value declined slightly.

Imports of raw materials and semimanufactured products have constituted during the past quarter of a century an ever increasing share of the materials used by American factories. The ratio of exports of manufactures to the total output of our factories, on the other hand, has remained relatively constant, owing to the great expansion of our domestic market.

GENERAL MOVEMENT OF TRADE

Total Merchandise Imports and Exports.

Both the value and the volume of the foreign trade of the United States (exports and imports combined) increased during 1926 for the fourth consecutive year. The import trade showed a particularly large growth and reached an aggregate value of $4,431,000,000, which was 4.8 per cent greater than in 1925 and 42.4 per cent more than in 1922. As import prices averaged lower than in 1925, the increase in quantity of merchandise imports was even larger than the value figures indicate. The growth was very general in all lines of import trade and noteworthy increases in quantity were shown for coffee, newsprint, refined petroleum products, and many types of finished manufactures.

Merchandise exports totaled $4,809,000,000 in 1926, which was 2.1 per cent less than in 1925, but 25.5 per cent greater than in 1922.

Export prices showed an average decline of about 8 per cent for the year, so that there was apparently an increase of several per cent in the quantity of goods shipped. If the price of cotton, which declined sharply during the year, had remained at the same level as in 1925, the total value of exports would have increased by over 4 per cent. Quantitative changes in total exports and imports are compared to changes of value in Chart III, on page 89. The most significant changes in the export trade during the year were the drastic decline in the price of raw cotton, increases in the quantitative exports of coal, petroleum products, iron and steel, and machinery, and decreases in the quantity of meat and sugar exported. A large increase in exports of wheat was about offset by a marked curtailment in shipments of other grains. The entrepôt trade continued to be small as the value of reexports amounted to only $97,000,000, as compared with a value of $4,712,000,000 for exports of domestic merchandise.

Trend of Trade.

The longer trend of our merchandise trade is shown by Chart I and also in Table 1, while the amount and percentage by which the trade of 1926 increased over or decreased from various other years is given in Table 2.

Table 1.—Exports, Imports, and Balance of Trade of the United States

[Data cover period beginning July 1, 1876, and ending December 31, 1926. Values in millions of dollars]

Yearly average or year	Merchandise					Excess of exports (+) or imports (−)			
	Exports			Total imports	Per cent imports are of exports	Merchandise	Gold	Silver	Merchandise, gold and silver
	Total	Domestic	Foreign						
1876–1880	677	664	13	493	72. 8	+184	−12	+9	+182
1881–1885	792	775	17	667	84. 2	+125	−21	+11	+114
1886–1890	738	726	13	717	97. 1	+21	+3	+13	+38
1891–1895	892	876	16	785	88. 0	+107	+38	+20	+165
1896–1900	1, 157	1, 136	21	742	64. 1	+416	−24	+27	+419
1901–1905	1, 454	1, 427	27	972	66. 9	+482	+1	+23	+506
1906–1910	1, 779	1, 751	28	1, 345	75. 6	+434	−15	+14	+433
1911–1915	2, 371	2, 332	39	1, 712	72. 2	+658	−3	+23	+678
1915–1920 [1]	6, 521	6, 417	105	3, 358	51. 5	+3, 163	−149	+79	+3, 093
1921–1925	4, 397	4, 310	87	3, 450	78. 5	+947	−265	+10	+692
1910–1914 (fiscal)	2, 166	2, 130	35	1, 689	78. 0	+477	+17	+20	+515
1913 (calendar)	2, 484	2, 448	36	1, 793	72. 2	+691	+28	+27	+746
1919	7, 920	7, 750	171	3, 904	49. 3	+4, 016	+292	+150	+4, 457
1920	8, 228	8, 080	148	5, 278	64. 2	+2, 950	−95	+26	+2, 880
1921	4, 485	4, 379	106	2, 509	55. 9	+1, 976	−667	−12	+1, 297
1922	3, 832	3, 765	67	3, 113	81. 2	+719	−238	−8	+473
1923	4, 167	4, 091	77	3, 792	91. 0	+375	−294	−2	+79
1924	4, 591	4, 498	93	3, 610	78. 6	+981	−258	+36	+759
1925	4, 910	4, 819	91	4, 227	86. 1	+683	+134	+35	+852
1926	4, 809	4, 712	97	4, 431	92. 1	+378	−98	+23	+302

[1] Period July 1, 1915, to Dec. 31, 1920.

Foreign trade has shown a rather steady growth throughout the history of the United States, except for brief periods of time when conditions were disturbed by domestic and foreign wars. Exports increased steadily from the beginning of the present century to 1914, and were enormously expanded during the war and postwar boom, partly by increases in quantities and partly by great price advances. After a very sharp decline in values during the years 1921 and 1922, which resulted largely from lower prices, there has been another period of expansion which has now lasted for over four years. The trend of imports has been similar to that of exports, except that the expansion during the war years was not so great, whereas the increase in recent years has been relatively greater.

Table 2.—Increase or Decrease of Foreign Merchandise Trade

[Amounts in millions of dollars]

Yearly average or year	Exports		Imports	
	Amount	Per cent	Amount	Per cent
1926 as compared with—				
1910–1914 (fiscal)	+2,643	+122.0	+2,742	+162.4
1921–1925 (calendar)	+413	+9.4	+982	+28.5
1922	+979	+25.5	+1,320	+42.4
1923	+643	+15.4	+640	+16.9
1924	+219	+4.8	+823	+22.8
1925	−101	−2.1	+204	+4.8

Imports have had an increasing importance in our total trade in recent years and bore a higher ratio to exports (92 per cent) in 1926 than for over 30 years. This ratio practically always increases at a time of business activity and prosperity and declines as business becomes less active or depressed.

The increase in the export trade of the United States as compared with pre-war years is particularly noteworthy in view of the fact that the trade of many other countries, after allowing for price changes, is considerably smaller than at that period. British exports at present are smaller than before the war, and those of Germany show an even more pronounced decline. Of the total exports of all important commercial countries of the world the exports of the United States constituted 12.8 per cent in 1913, 17 per cent in 1924, and 16.3 per cent in 1925. The decrease in the proportion of United States trade to the total in 1925 as compared with the previous year was owing entirely to the great expansion of trade in other countries, as there was actually a considerable increase in the exports of the United States.

The gain of the United States in export trade as compared with the years before the war is indicated by the import statistics of other countries which show the ratio of the goods they receive. Comparisons showing the proportion of the United States in the imports of a number of leading countries in different parts of the world are shown in Table 3. The table indicates that the United States furnished a larger proportion of the imports of each reporting foreign country in recent years than in the year 1913. Comparison of regions for 1925 with those for 1924, however, indicate that our proportion of the trade of Cuba, Mexico, China, Japan, and Australia declined considerably, while the only country where it showed a substantial increase was Argentina.

Table 3.—Share of the United States in the Imports of Leading Countries

NOTE.—Figures for Chile and Peru include precious metals. Australian figures are exclusive of imports from Alaska and Hawaii.

[Values in thousands of dollars]

Country	Total imports			Imports from the United States			United States share of imports		
	1913	1924	1925	1913	1924	1925	1913	1924	1925
							Per ct.	*Per ct.*	*Per ct.*
Canada	633, 692	808, 145	890, 267	410, 928	524, 688	580, 176	64. 8	64. 9	65. 2
Cuba	140, 132	289, 831	297, 324	78, 937	194, 197	189, 380	56. 3	67. 0	63. 7
Mexico	93, 111	155, 110	188, 239	44, 616	112, 349	132, 325	47. 9	72. 4	70. 3
Argentina	478, 859	647, 478	801, 283	70, 457	142, 723	188, 491	14. 7	22. 0	23. 5
Brazil	326, 865	305, 181	411, 845	51, 358	73, 810	102, 231	15. 7	24. 2	24. 8
Chile	120, 270	120, 340	147, 691	20, 088	28, 279	40, 995	16. 7	23. 5	27. 8
Peru	29, 631	73, 829	74, 158	8, 542	28, 857	28, 665	28. 8	39. 1	38. 6
France	1, 625, 317	2, 103, 246	2, 096, 595	172, 685	292, 523	304, 279	10. 6	13. 9	14. 5
Germany	2, 565, 339	2, 176, 076	2, 958, 061	407, 588	407, 020	523, 510	15. 9	18. 7	17. 7
Italy	703, 608	844, 948	1, 041, 066	101, 128	202, 555	245, 610	14. 4	24. 0	23. 6
United Kingdom	3, 741, 048	5, 642, 530	6, 377, 660	689, 442	1, 065, 482	1, 184, 809	18. 4	18. 9	18. 6
British India	594, 521	774, 755	820, 226	15, 544	44, 979	50, 259	2. 6	5. 8	6. 1
China	427, 711	925, 736	816, 370	25, 845	170, 124	120, 552	6. 0	18. 4	14. 8
Japan	363, 622	1, 010, 451	1, 055, 721	61, 066	276, 353	272, 888	16. 8	27. 3	25. 8
Australia	380, 541	641, 160	716, 918	53, 103	181, 851	169, 958	14. 0	28. 4	23. 7

Changes in Foreign Trade During 1926.

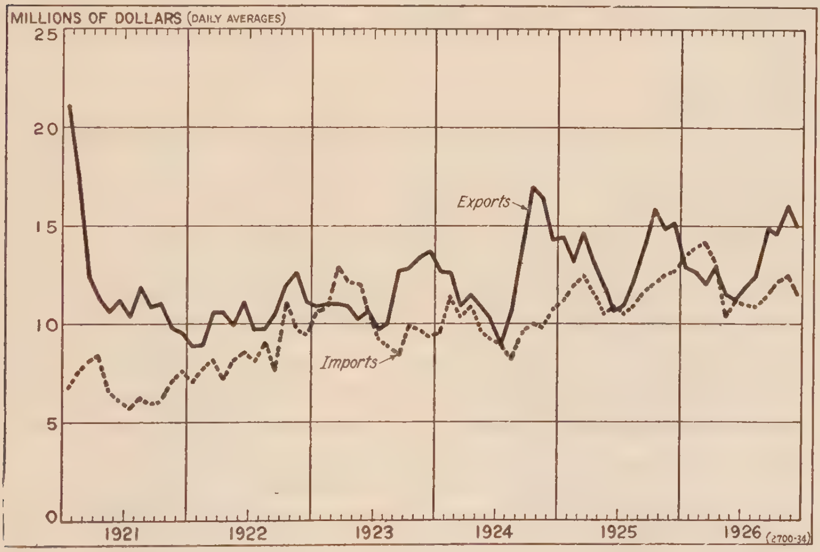
The usual seasonal movement of our foreign trade was somewhat accentuated during 1926. Table 4 shows the total value of exports and imports during each month for the last six years, while Chart II shows the same figures reduced to a daily average basis in order to eliminate fluctuations due to the number of days in different months. Exports, as a result of the influence of agricultural products, reach a low point in the early summer, rise to a peak in the fall, and gradually decline throughout the winter and spring. The United States export trade was unusually small in the early months of 1926 as a result of our small wheat crop of 1925 and the restricted demand for our cotton in Europe. Exports did not, however, decline as much as usual in the summer months because an exceptional foreign demand for American coal developed as a result of the British coal strike. These large shipments of coal continued throughout the fall months and there were also very heavy shipments of wheat and cotton. In fact, our export trade reached a record volume in the last quarter of the year although this fact was partially concealed by a sharp decline in the price of raw cotton which somewhat reduced the aggregate value of the trade, as compared with the previous year.

Table 4.—Monthly Merchandise Exports and Imports

[Values in millions of dollars]

Month	Exports						Imports					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	654	279	335	395	446	397	209	217	329	296	346	417
February	486	251	307	366	371	353	215	216	303	332	333	387
March	387	330	341	340	454	374	252	256	398	320	385	443
April	340	318	325	347	398	388	255	217	364	324	346	398
May	330	308	316	335	371	357	205	253	373	303	328	321
June	337	335	320	307	323	338	186	260	320	274	325	336
July	325	301	302	277	340	368	178	252	287	279	326	339
August	367	302	311	331	380	384	195	281	275	255	340	336
September	325	313	381	427	420	448	179	298	254	287	350	343
October	343	371	399	527	491	455	188	276	308	311	374	377
November	294	380	401	494	448	480	211	292	291	296	376	374
December	296	344	427	446	468	465	237	294	288	333	397	359

Chart II.—DAILY AVERAGES OF TOTAL MERCHANDISE EXPORTS AND IMPORTS



Imports into the United States usually reach a peak in the early part of each year, decline during the spring and summer, and show a moderate expansion in the fall. In 1926 this seasonal movement was very much exaggerated as a result of the wide fluctuations in the price of crude rubber. Imports reached an exceptionally high value in March, but declined very sharply in the three succeeding months, as there was some curtailment in their quantity and the average import value of rubber decreased by almost one-half during this period. The import trade expanded moderately in the last quarter of the year, but was much smaller in value than in the first quarter.

Table 5.—Exports, Imports, Per Cent Change, and Balance of Trade, by Quarters

[Values in millions of dollars]

Period	Merchandise		Per cent change in merchandise trade as compared with corresponding quarter one year before		Excess of exports (+) or imports (−)		
	Exports	Imports	Exports	Imports	Merchandise	Gold	Silver
1924							
January-March	1,101	948	+11.9	−8.0	+152	−113	+5
April-June	989	901	+2.8	−14.7	+88	−110	+12
July-September	1,035	820	+4.0	+.5	+214	−36	+7
October-December	1,466	940	+19.5	+5.9	+526	+1	+12
1925							
January-March	1,271	1,065	+15.4	+12.3	+206	+133	+7
April-June	1,093	999	+10.5	+10.8	+94	+17	+11
July-September	1,140	1,016	+10.2	+23.8	+124	−6	+7
October-December	1,407	1,147	−4.1	+22.0	+260	−10	+9
1926							
January-March	1,124	1,247	−11.6	+17.1	−123	−77	+6
April-June	1,083	1,055	−.9	+5.6	+28	−4	+7
July-September	1,201	1,019	+5.4	+0.3	+182	+10	+4
October-December	1,401	1,110	−.4	−3.2	+291	−26	+6

Balance of Trade.

The excess of our merchandise exports over our merchandise imports declined from $981,000,000 in 1924 to $683,000,000 in 1925 and $378,000,000 in 1926. In addition to the decline in the excess of merchandise there was a net inward movement of gold during the past year and a slight decline in the net exports of silver. The combined excess of exports of merchandise, gold, and silver totaled $302,000,000 in 1926, which was smaller than in any year of the past decade except 1923. New foreign loans and investments by the United States, however, increased substantially during the past year and there was also some increase in the amount of tourist expenditures abroad.

QUANTITY AND PRICE CHANGES

During certain periods of time changes in the value of exports and imports do not measure at all closely to changes in their quantity. It is, therefore, very desirable to eliminate the effect of price fluctuations upon trade statistics. In order to arrive at a satisfactory estimate of quantitative changes in exports and imports it is necessary to calculate the percentage of change in each particular commodity and combine these with proper weighting, according to the relative importance of the commodities, into a general average. The indexes shown in Table 6 and Chart III were calculated in this manner.

Table 6.—Indexes of Changes in Quantity, Price, and Value of Imports and Domestic Exports

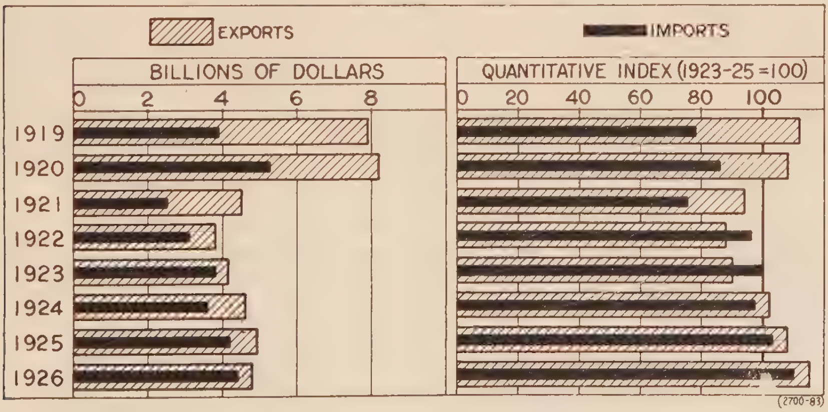
Year	Domestic exports			Imports			Domestic wholesale price index
	Quantity	Price	Value	Quantity	Price	Value	
1913 taken as 100:							
1913	100	100	100	100	100	100	100
1910–1914 [1]	[2] 89	(2)	87	(2)	(2)	94	98
1921–1925	123	144	176	151	126	192	151
1919	142	223	317	125	174	218	206
1920	137	241	330	139	213	294	226
1921	120	150	179	120	117	140	146
1922	112	138	154	154	113	174	149
1923	115	146	167	161	132	212	154
1924	130	143	184	156	129	201	150
1925	137	144	197	166	142	236	159
1926	146	133	192	178	139	247	151
1923–1925 taken as 100:							
1913	79	69	55	62	75	46	65
1910–1914 [1]	[2] 70	(2)	48	(2)	(2)	44	64
1921–1925	96	100	96	94	94	89	98
1919	112	155	173	78	130	101	134
1920	108	167	181	86	158	136	147
1921	94	104	98	75	87	65	95
1922	88	95	84	96	84	80	97
1923	90	101	92	100	98	98	100
1924	102	99	101	97	96	93	97
1925	108	100	108	103	106	109	103
1926	115	92	105	110	104	114	98

[1] Fiscal years.

[2] Indexes of quantity and price were not calculated for 1910–1914. The quantity index of exports for the average of 1910–1914 is estimated by assuming that the relation of export prices in 1910–1914 to 1913 was the same as that for domestic prices.

Chart III.—CHANGES IN VALUE AND QUANTITY OF FOREIGN TRADE

Note.—For the quantitative indexes by which the effect of price changes is eliminated, the average quantities of the several commodities for the three-year period 1923–1925 are taken as the base (100) in the case of both exports and imports.



Export trade has shown a large gain in physical volume since 1922, especially trade in cotton and in many kinds of finished manufactures. The increase in quantity of merchandise exported in 1926 as compared to 1922 amounted to over 30 per cent. In 1923 the average price of exports increased rather sharply. Prices of export commodities on the average showed only moderate changes in 1924 and 1925, but declined very sharply in 1926, reaching a point about 3 per cent lower than in 1922. The price decline in 1926 was particularly marked in the case of raw cotton, the most important commodity in the trade.

The value of import trade was over two and one-half times as great in 1926 as the average for the pre-war years 1910–1914. Since 1921 import trade has shown exceedingly marked expansion, amounting to about 75 per cent. This great increase in recent years has been due to a combination of much larger purchases with considerably higher average prices. The quantity of goods imported in 1926 was 48 per cent greater than in 1921, while prices averaged 19 per cent higher. Prices of rubber and coffee imported were more than twice as high in 1926 as in 1921. The price of sugar advanced in 1923 but declined in 1925 and 1926 to a lower level than it had reached in 1921. Imports of rubber, tin, copper, and sugar have all shown exceptionally large quantitative increases since 1921.

RELATIONSHIP OF EXPORTS TO PRODUCTION

Our exports represent a much smaller proportion of total production than is true of a number of leading countries. The United States is self-contained to an extraordinary degree and meets a smaller proportion of its consumption requirements than most countries by means of imports. Consequently, it needs to export only moderate quantities of merchandise in order to pay for its imports. Such countries as the United Kingdom, Belgium, Netherlands, and Germany are much less able to supply their requirements directly from domestic production, and consequently are obliged to export a much larger proportion of their domestic production in order to pay for imports, especially raw materials and foodstuffs. Similarly countries such as Canada, Australia, and Argentina, which are primarily agricultural, export a large proportion of their products to pay for manufactured articles imported.

Table 7.—Production of Exportable Goods and Proportion Exported

NOTE.—Agricultural production excludes duplications and seeds. Value added by manufacture is used to represent manufacturing and it is partly estimated for the year 1925 on the basis of preliminary returns. Value of mine products in 1909 and 1919 are census figures, while estimates for other years are based on data of the Bureau of Mines.

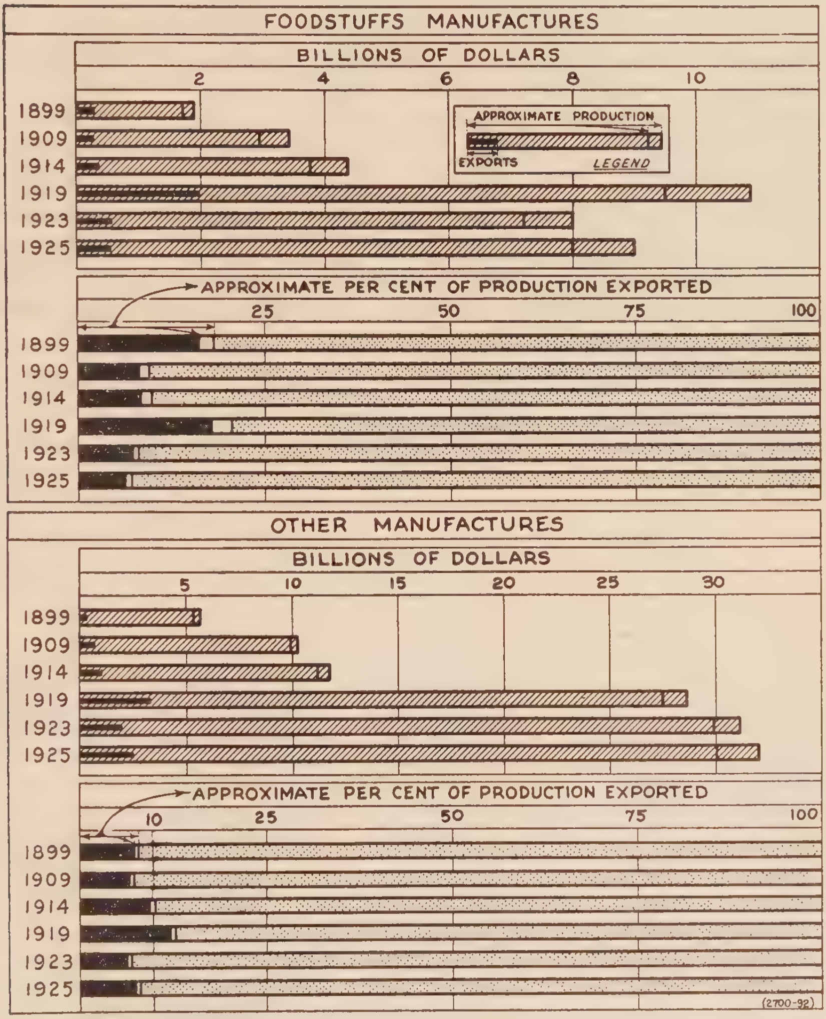
[Millions of dollars]

Year	Agricultural products	Manufactures	Mining	Freight receipts (railroad)	Total	Exports (domestic)	Per cent of total
1899	3,450	4,831	600	[1] 981	9,862	1,253	12.7
1904	4,600	6,294	850	[1] 1,415	13,159	1,426	10.8
1909	6,100	8,529	1,238	[1] 1,801	17,668	1,701	9.6
1914	7,500	9,709	1,450	[1] 2,082	20,741	2,071	10.0
1919	15,700	24,806	3,158	3,625	47,292	7,750	16.4
1921	9,200	18,332	2,900	4,004	34,436	4,379	12.7
1923	11,300	25,850	4,300	4,713	46,163	4,091	8.9
1925	12,400	26,800	4,100	4,650	47,950	4,819	10.1

[1] Mean of preceding and following fiscal year.

The fact that the export trade of the United States, notwithstanding its marked increase in absolute amount, is not a larger proportion of the total domestic production than a quarter of a century ago, is readily explainable. With its abundant resources it has been able to keep pace with its increasing requirements. In contrast with actual declines in production in many countries resulting from the war and with slow increases in most of the others, the United States has been fortunate in rapidly increasing the volume of its output during the past decade and raising the standard of living of its people. The rest of the world has lacked growth in buying power to keep

Chart IV.—**EXPORTS OF MANUFACTURED GOODS IN RELATION TO DOMESTIC PRODUCTION**



pace with the growth in producing power in this country. The significant aspect of the statistics is not that the exports of the United States have increased slowly but that its production has increased very greatly.

The ratio of exports to domestic production has varied considerably in the case of agricultural products. It declined for about 15 years preceding the war, but by reason of the stimulus given to food exports during the war the ratio for the five-year period, 1921–1925, was somewhat higher than for 1910–1914. Approximately one-sixth of the total value of our agricultural products has on the average for recent years been shipped overseas.

Leaving out of account manufactured foodstuffs, the value of exports of products of American factories at the present time is six times as great as at the beginning of the century. Even after eliminating the effect of higher price levels, the quantitative volume has trebled. Nevertheless the proportion which exports of nonfood manufactures form of the total output is practically no greater to-day than 25 years ago, as there has been an equally marked expansion in the domestic market.

Table 8.—Export of Manufactured Goods in Relation to Domestic Production

NOTE.—The value of materials entering factories is necessarily approximate, and hence is expressed as a maximum or minimum.

[In millions of dollars]

Year	Value of domestic product			Exports	
	Materials, excluding duplication	Value added by manufacture	Total	Amount	Per cent
Total:					
1899	2,300– 2,800	4,830	7,100– 7,600	745	9.8–10.5
1904	3,100– 3,700	6,300	9,400–10,000	863	8.6– 9.2
1909	4,300– 5,200	8,530	12,800–13,700	1,001	7.3– 7.8
1914	5,300– 6,500	9,700	15,000–16,200	1,505	9.3–10.0
1919	12,500–14,500	24,800	38,300–40,300	5,449	13.5–14.2
1921	8,000– 9,400	18,330	26,300–27,700	2,722	9.8–10.3
1923	11,500–13,200	25,850	37,300–39,100	2,625	6.7– 7.0
1925	12,000–13,500	[1] 26,780	38,500–40,000	3,079	7.6– 8.0
Foodstuffs manufactures:					
1899	1,300– 1,500	415	1,700– 1,900	312	16.4–18.4
1904	1,700– 2,000	540	2,250– 2,550	296	11.6–13.2
1909	2,200– 2,700	750	2,950– 3,450	281	8.2– 9.5
1914	2,700– 3,300	1,070	3,750– 4,350	374	8.6–10.0
1919	7,000– 8,400	2,500	9,500–10,900	1,963	18.0–20.7
1921	4,100– 4,800	2,140	6,250– 6,950	685	9.9–11.0
1923	4,700– 5,500	2,520	7,200– 8,000	583	7.3– 8.1
1925	5,400– 6,200	[1] 2,670	8,000– 9,000	574	6.4– 7.2
ther manufactures:					
1899	1,000– 1,300	4,415	5,400– 5,700	433	7.6– 8.0
1904	1,400– 1,700	5,760	7,150– 7,450	567	7.6– 7.9
1909	2,100– 2,500	7,780	9,900–10,300	720	7.0– 7.3
1914	2,600– 3,200	8,630	11,250–11,850	1,131	9.5–10.1
1919	5,200– 6,400	22,300	27,500–28,700	3,486	12.1–12.7
1921	3,800– 4,700	16,190	20,000–20,900	2,037	9.7–10.2
1923	6,600– 7,900	23,330	29,900–31,200	2,042	6.5– 6.8
1925	6,500– 7,800	[1] 24,110	30,000–32,000	2,505	7.8– 8.3

[1] Approximate.

It is impossible to answer with entire precision the question as to the proportion which exports of manufactured goods form of the total production. The census reports of the value of products involve an immense duplication, owing to the use of partly manufactured products for further elaboration in other establishments. It is, however, possible to estimate fairly closely the net value of manufactures by summarizing the available information as to the value of the major individual raw materials and of the imported partly manufactured materials used by factories. It is believed that this method gives totals for the cost of materials, exclusive of duplication, that are subject to a margin of error not greater than 10 per cent. The value added by manufacture is a definite figure obtained by deducting from the sum total of the value of all products the sum total of the cost of all materials. Since this value added by manufacture is, in the case of products other than foodstuffs, more than three times as great as the value of the raw and imported materials used, the combined total net value of product (materials plus value added by manufacture) is subject to only a relatively small margin of error—perhaps 3 or 4 per cent up or down from the estimated figure. To avoid giving the appearance of exactitude, however, the accompanying table and chart present the figures of net value of manufactures in the form of maximum and minimum range.

The tendency with respect both to domestic production and exports is different for foodstuffs manufactures than for other classes of goods. The figures in Table 8 somewhat exaggerate the decline in the proportion of manufactured foods exported during recent years as compared with the beginning of the century. The manufacture of certain classes of food products has been increasingly transferred from the farm and the home to the factory.

In 1899 more than one-sixth (somewhere between 16.4 and 18.4 per cent) of the reported production of manufactured foodstuffs was exported, in addition to much exportation of unmilled grain. While the exports of flour continued fairly steady, a marked decline occurred in the export of meats, with the consequence that in 1909 and again in 1914 the exports of manufactured foodstuffs were less than one-tenth of the reported domestic output. With the extraordinary war demand of the allied powers for foods, exports of manufactured foodstuffs during 1918 and 1919 reached very large proportions, not far from one-fifth of the total output. The deliberate efforts of the American people to economize food at that time also served to increase the proportion sent overseas. After the war the gradual recovery of agriculture in Europe, the increasing competition of other food-producing countries, and the growth of population in the United States caused a decided decrease in exports of manufactured foodstuffs, so that the proportion of domestic production fell in 1925, the latest census year, to below 7 per cent. The exports of manufactured foodstuffs in 1926 were smaller still.

It is natural that with the steady growth of population in the United States, much exceeding the rate of growth in European countries, and with the rising importance of Canada, Australia, and Argentina as sources of food supply, there should be some decrease in the relative importance of exports both of crude and of manufactured foods.

Quite different has been the history of the export of manufactured commodities other than foodstuffs. In 1899 the value of the domestic output of such manufactures was in the neighborhood of $5,500,000,000, and the value of the exports $433,000,000—exports thus representing between 7½ and 8 per cent of the total. In 1925 the value of the output was more than $30,000,000,000, and that of the exports a little over $2,500,000,000; the proportion was practically the same as in 1899—around 8 per cent.

These percentages show remarkably little change despite the immense increase in the absolute figures both of domestic production and of export, reflecting the great progress of the country in efficiency of production. The ability to produce more and more goods in this country has carried with it the ability to consume more and more.

Table 9.—Ratio of Exports to Production of Important Agricultural, Forest, and Mineral Products

NOTE.—Production and exports are both for calendar years in the case of meats, milk, lumber, and mineral products, years ended July 31 for cotton; production represents calendar years and exports years ended June 30, for other crops; for naval stores exports are for years ended June 30 and production for years ended March 31.

Item	Production			Exports			Per cent exported			
	1914	1923	1926	1914	1923	1926	1914	1919	1923	1926
AGRICULTURAL AND FOREST PRODUCTS										
Meat products:[1] Million pounds	14, 956	20, 695	19, 569	956	2, 080	1, 198	6. 4	13. 6	10. 1	6. 1
Beef and veal: Million pounds	6, 038	7, 743	8, 418	93	42	38	1. 5	3. 8	. 5	. 5
Mutton and lamb: Million pounds	712	571	643	5	3	2	. 7	. 7	. 5	. 3
Pork: Million pounds	6, 530	9, 595	8, 181	393	960	425	6. 0	24. 0	10. 0	5. 2
Lard: Million pounds	1, 657	2, 783	2, 324	465	1, 075	733	28. 1	38. 7	38. 6	31. 5
Milk, condensed: Million pounds	894	1, 914	[2] 1, 910	23	197	[2] 151	2. 6	38. 8	10. 3	[2] 7. 9
Wheat: Million bushels	763	868	676	146	222	106	19. 1	31. 2	25. 6	15. 7
Oats: Million bushels	1, 122	1, 216	1, 488	3	25	40	. 2	7. 1	2. 1	2. 7
Rye: Million bushels	41	103	46	2	52	13	5. 5	40. 1	50. 0	27. 2
Corn: Million bushels	2, 447	2, 906	2, 917	11	97	25	. 4	. 6	3. 3	. 8
Tobacco, leaf: Million pounds	954	1, 247	1, 377	450	454	537	47. 2	43. 7	36. 4	39. 0
Cotton: 1,000 bales (500 lbs.)	14, 795	10, 370	17, 219	9, 256	5, 049	8, 377	62. 6	45. 1	48. 7	48. 6
Rosin: 1,000 barrels (500 lbs.)	2, 132	1, 500	1, 579	1, 354	1, 040	1, 086	63. 5	44. 3	69. 3	68. 8
Turpentine: 1,000 gallons	32, 000	22, 394	23, 922	18, 901	9, 012	10, 241	59. 1	47. 3	40. 2	42. 8
Lumber: Million board feet	40, 500	39, 000	37, 500	2, 103	2, 368	2, 695	5. 2	4. 3	6. 1	7. 2
MINERAL PRODUCTS										
Coal, anthracite: 1,000 short tons	90, 822	93, 339	85, 000	4, 290	5, 090	4, 030	4. 7	5. 6	5. 5	4. 7
Coal, bituminous: 1,000 short tons	422, 704	564, 565	578, 290	15, 458	21, 454	35, 272	3. 7	4. 3	3. 8	6. 1
Petroleum, crude: 1,000 barrels [3]	265, 763	732, 407	766, 504	2, 970	17, 061	15, 406	1. 1	1. 6	2. 3	2. 0
Gasoline and naphtha: 1,000 barrels [3]	34, 763	179, 903	299, 734	4, 993	20, 136	42, 539	17. 6	9. 4	11. 2	14. 2
Kerosene: 1,000 barrels [3]	46, 078	55, 927	61, 768	24, 058	20, 189	21, 736	52. 2	41. 8	36. 1	35. 2
Gas and fuel oil: 1,000 barrels [3]	88, 907	287, 481	365, 195	15, 102	29, 252	34, 516	17. 0	7. 7	10. 2	9. 5
Lubricating oil: 1,000 barrels [3]	12, 329	26, 128	32, 293	4, 563	8, 296	9, 266	37. 1	31. 3	31. 8	28. 7
Copper: 1,000 short tons	767	990	1, 173	420	415	483	54. 8	28. 6	41. 9	41. 2

[1] Production includes small quantity of goat meat not given separately.
[2] Data are for 1925.
[3] Barrels of 42 gallons.

The table negatives the idea that the growth of the export trade of the United States has been due to the war and the consequent cutting down of the productive capacity of leading European industrial nations. After allowing for the changes in price levels, the increase in the export of manufactured goods (other than foodstuffs) from 1899 to 1914 was at a rate even more rapid than that between 1914 and the present time. The fact that the proportion which exports form of domestic production of manufactured goods is lower in recent years than it was at the outbreak of the war shows that the primary cause of the absolute increase in our export of such goods has been the growth in the domestic production of them.

Table 10.—Ratio of Exports to Production of Important Manufactured Products

NOTE.—Production and export figures are for calendar years.

[Quantities and values have 000 omitted]

Manufactured products	Production			Exports			Per cent exported			
	1914	1923	1925	1914	1923	1925	1914	1919	1923	1925
Leather boots and shoes.....pairs..	292, 666	351, 114	323, 553	10, 180	7, 697	6, 875	3. 5	6. 5	2. 2	2. 1
Rubber boots and shoes......do....	61, 236	95, 315	82, 078	1, 939	5, 270	6, 655	3. 2	6. 3	5. 5	8. 1
Pneumatic tires for automobiles ......number..	8, 021	45, 426	58, 784	-------	1, 363	1, 628	-----	-----	3. 0	2. 8
Cigarettes.............thousands..	16, 870	66, 734	79, 976	2, 407	12, 253	8, 146	14. 3	30. 5	18. 4	10. 2
Cotton yarn..............pounds..	515, 039	635, 632	636, 258	-------	12, 081	21, 892	-----	3. 3	1. 9	3. 4
Cotton hosiery........dozen pairs..	61, 410	57, 620	50, 403	-------	5, 160	5, 534	-----	15. 6	9. 0	11. 0
Iron and steel plates and sheets ......tons..	4, 719	9, 498	9, 808	280	386	387	5. 9	14. 1	4. 1	3. 9
Skelp iron or steel...........do....	1, 982	3, 734	3, 230	-------	105	83	-----	-----	2. 8	2. 6
Tinplate, terneplate, etc. ....do....	931	1, 507	1, 658	60	124	161	6. 4	17. 8	8. 2	9. 7
Structural shapes............do....	2, 031	3, 405	3, 604	182	199	166	9. 0	13. 8	5. 8	4. 6
Rails.......................do....	1, 945	2, 905	2, 785	175	267	152	9. 0	29. 6	9. 2	5. 5
Wrought pipe and boiler tubes ......tons..	1, 738	3, 351	3, 031	-------	194	240	-----	9. 9	5. 8	7. 9
Locomotives (steam).....number[1]..	--------	3, 598	1, 191	269	266	363	-----	28. 1	7. 4	30. 5
Sewing machines, cases, and attachments............dollars..	27, 238	42, 933	45, 131	8, 659	10, 905	10, 634	31. 8	22. 0	25. 4	23. 6
Cash registers and parts.....do....	15, 935	44, 382	42, 326	3, 200	3, 579	5, 340	20. 1	13. 9	8. 1	12. 6
Typewriters and parts.......do....	20, 517	39, 521	50, 190	7, 573	14, 362	19, 652	36. 9	40. 2	36. 3	39. 2
Agricultural machinery [2].....do....	--------	364, 854	392, 457	24, 733	50, 571	77, 565	-----	-----	13. 9	19. 8
Automobiles..............number..	573	3, 890	4, 165	26	152	303	4. 5	4. 4	3. 9	7. 3
Motor cycles.................do....	62	42	39	7	22	23	10. 5	41. 4	52. 8	59. 0
Pianos......................do....	326	348	322	6	18	21	1. 8	4. 9	5. 3	6. 5

[1] Expressed in full number; 000 not omitted.

[2] Production figures are "Farm equipment."

Small as is the proportion exported of our manufactures considered as an aggregate, there are many individual manufactured articles of which a relatively large share is sold abroad. There are a number also of which the proportion exported during recent years is considerably greater than it was before the war or at the beginning of the century. In the case of illuminating and lubricating oils, approximately one-third of domestic production is shipped to foreign countries. Exports constitute from 15 to 20 per cent of the total output of agricultural machinery, from 20 to 30 per cent of that of sewing machines, approximately one-half of that of motor cycles, from 10 to

20 per cent of that of cash registers, from 30 to 40 per cent of that of typewriters, and from 15 to 20 per cent of that of cigarettes.

Among commodities of which exports at the present time represent a larger share of the total output than before the World War may be mentioned automobiles, automobile tires, motor cycles, pianos, and various classes of chemicals—notably coal-tar products and fertilizers. There has been a very great growth of the chemical industry in this country in the last decade or so, and it has begun to export a number of chemical products for which formerly it was largely dependent on foreign countries. In the case, however, of many of those articles which are considered typically American and which find ever greater favor in foreign markets, the domestic use has increased so greatly that the proportion exported is no larger now than in the earlier years of the century.

RELATION OF IMPORTS TO TOTAL MATERIALS USED IN MANUFACTURING

Foreign trade is of greater importance to our manufacturing industry in furnishing its raw materials than in providing markets for its finished products. During the past quarter of a century imports of raw materials and semimanufactured products from foreign countries and our noncontiguous territories have formed an ever-increasing part of the total materials used by American factories. The census of manufactures does not segregate materials by their sources, but the accompanying table shows careful estimates of the various domestic materials and the exact value of our imports of foreign materials for factory consumption. It should be borne in mind that these figures may slightly exaggerate the importance of foreign materials owing to the nature of the products, as certain of the domestic materials such as iron ore are much more highly elaborated in the course of manufacture than most of those which we import.

Table 11.—Value of Factory Raw Materials, Including Imported Materials and Semimanufactures

[Millions of dollars]

Item	1899	1904	1909	1914	1919	1921	1923
Agricultural (domestic)	1,450	1,900	2,500	3,200	7,300	4,050	5,200
Forestry	75	125	150	200	400	350	400
Mining	250	350	600	700	1,600	1,500	2,300
Imported	500	725	1,000	1,225	3,100	1,725	2,850
Freight	250	350	450	500	900	1,000	1,175
Total	2,525	3,450	4,700	5,825	13,300	8,625	11,925

Table 11 indicates that the ratio of the value of imported materials to the total has shown a rather steady growth since the beginning of the present century. This ratio, which was slightly less than 20 per cent in 1899, increased to about 24 per cent in 1923 and, according to preliminary estimates, was over 26 per cent in 1925. The great expansion in the use of imported materials in recent years has been largely owing to the growing importance of rubber, silk, and wood pulp in our manufacturing industries. We are now also importing a very substantial proportion of the wool, copper, and petroleum used in our factories and refineries, whereas most of these materials which were used in manufacture by us in earlier years were produced in the United States. We also import practically all of the tin, nickel, sisal, manila hemp, and flax used in our factories, as well as a large number of less important materials.

Imports of food for manufacturing bear a slightly smaller ratio to the total materials used by food factories than imports of other raw materials bear to the total materials used by nonfood factories. In 1923 food factories imported about 19 per cent of their raw materials while nonfood factories imported 27½ per cent. Sugar and cocoa beans are the foods which are imported in largest quantity as materials for factories. Most of the coffee which we import is roasted after it reaches this country, but this is not generally considered to be a manufacturing process.

COMMODITY DISTRIBUTION OF TRADE

Trade by Economic Classes.

Exports and imports are divided into five great economic classes of commodities according to their use and degree of manufacture, and analysis of the changes in these groups (Tables 12 and 13 and Chart V) gives some idea as to the significance of foreign trade in its relation to domestic agriculture and manufacturing.

Exports of crude materials and manufactured foodstuffs declined considerably in value during 1926 and there was also a small decrease in exports of semimanufactures. Exports of finished manufactures, on the other hand, were substantially larger and there was a moderate increase in exports of crude foodstuffs. The decrease of 11 per cent in value of crude material exports, as compared with 1925, was entirely owing to the lower price of cotton, while the decrease in exports of manufactured foodstuffs, which amounted to 12 per cent, resulted principally from a drastic decline in shipments of refined sugar and a general falling off in exports of packing-house products. Exports of finished manufactures were 6 per cent larger than in 1925 and were three times as great as in the average of the years 1910–1914. This steady expansion in the shipments to foreign countries of highly elaborated goods from our factories, which has been the most interesting feature of our trade in recent years, has resulted from the superiority of our manufacturers in producing on a large scale and at low unit cost goods requiring a large amount of capital and inventive genius.

Table 12.—Foreign Trade of the United States by Economic Classes

[Data cover period beginning July 1, 1876, and ending December 31, 1926. Values in millions of dollars]

Yearly average or year	Total value	Crude materials		Crude foodstuffs		Manufactured foodstuffs		Semimanufactures		Finished manufactures	
		Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
DOMESTIC EXPORTS											
1876-1880	664	214	32.2	159	23.9	162	24.4	30	4.5	99	14.9
1881-1885	775	262	33.8	163	21.0	197	25.5	37	4.8	116	14.9
1886-1890	726	277	38.1	109	15.0	182	25.0	40	5.5	119	16.4
1891-1895	876	295	33.7	151	17.2	239	27.2	55	6.3	136	15.6
1896-1900	1,136	297	26.1	215	18.9	273	24.0	110	9.6	242	21.3
1901-1905	1,427	432	30.3	174	12.2	316	22.2	161	11.3	344	24.1
1906-1910	1,751	555	31.7	156	8.9	317	18.1	249	14.2	474	27.1
1911-1915	2,332	717	30.7	206	8.8	334	14.3	359	15.4	716	30.7
1915-1920 [1]	6,417	1,169	18.2	588	9.2	1,133	17.7	987	15.4	2,540	39.6
1921-1925	4,310	1,187	27.5	420	9.7	601	13.9	537	12.5	1,566	36.3
1910-1914 (fiscal)	2,130	713	33.5	127	5.9	295	13.8	342	16.0	654	30.7
1913 (calendar)	2,448	777	31.7	170	6.9	325	13.3	397	16.2	780	31.9
1921	4,379	984	22.5	673	15.4	685	15.7	410	9.4	1,627	37.1
1922	3,765	988	26.3	459	12.2	588	15.6	438	11.6	1,292	34.3
1923	4,091	1,208	29.6	257	6.3	583	14.3	564	13.8	1,478	36.1
1924	4,498	1,333	29.6	393	8.7	573	12.8	611	13.6	1,588	35.3
1925	4,819	1,422	29.5	318	6.6	574	11.9	662	13.7	1,843	38.3
1926	4,712	1,261	26.8	335	7.1	503	10.7	656	13.9	1,956	41.5
IMPORTS											
1876-1880	493	91	18.5	89	18.6	106	21.5	61	12.4	145	29.4
1881-1885	667	133	20.0	99	14.9	128	19.1	92	13.7	215	32.2
1886-1890	717	162	22.6	113	15.8	118	16.5	113	15.8	210	29.3
1891-1895	785	185	23.6	147	18.7	141	17.9	113	14.4	200	25.5
1896-1900	742	219	29.5	112	15.1	118	15.9	99	13.4	194	26.2
1901-1905	972	325	33.4	126	12.9	120	12.4	162	16.6	240	24.7
1906-1910	1,345	465	34.6	148	11.0	159	11.8	240	17.8	334	24.8
1911-1915	1,712	598	34.9	219	12.8	215	12.6	297	17.4	383	22.4
1915-1920 [1]	3,358	1,348	40.1	408	12.2	545	16.2	574	17.1	484	14.4
1921-1925	3,450	1,290	37.4	383	11.1	448	13.0	609	17.7	720	20.9
1910-1914 (fiscal)	1,689	595	35.2	203	12.0	194	11.5	307	18.2	389	23.1
1913 (calendar)	1,793	620	34.6	221	12.3	198	11.1	340	19.0	413	23.1
1921	2,509	859	34.2	300	12.0	368	14.7	362	14.4	620	24.7
1922	3,113	1,180	37.9	330	10.6	387	12.4	553	17.8	663	21.3
1923	3,792	1,407	37.1	363	9.6	530	14.0	721	19.0	771	20.3
1924	3,610	1,258	34.9	425	11.8	522	14.4	656	18.2	749	20.8
1925	4,227	1,748	41.4	495	11.7	433	10.2	755	17.9	796	18.8
1926	4,431	1,793	40.5	540	12.2	418	9.4	804	18.1	876	19.8

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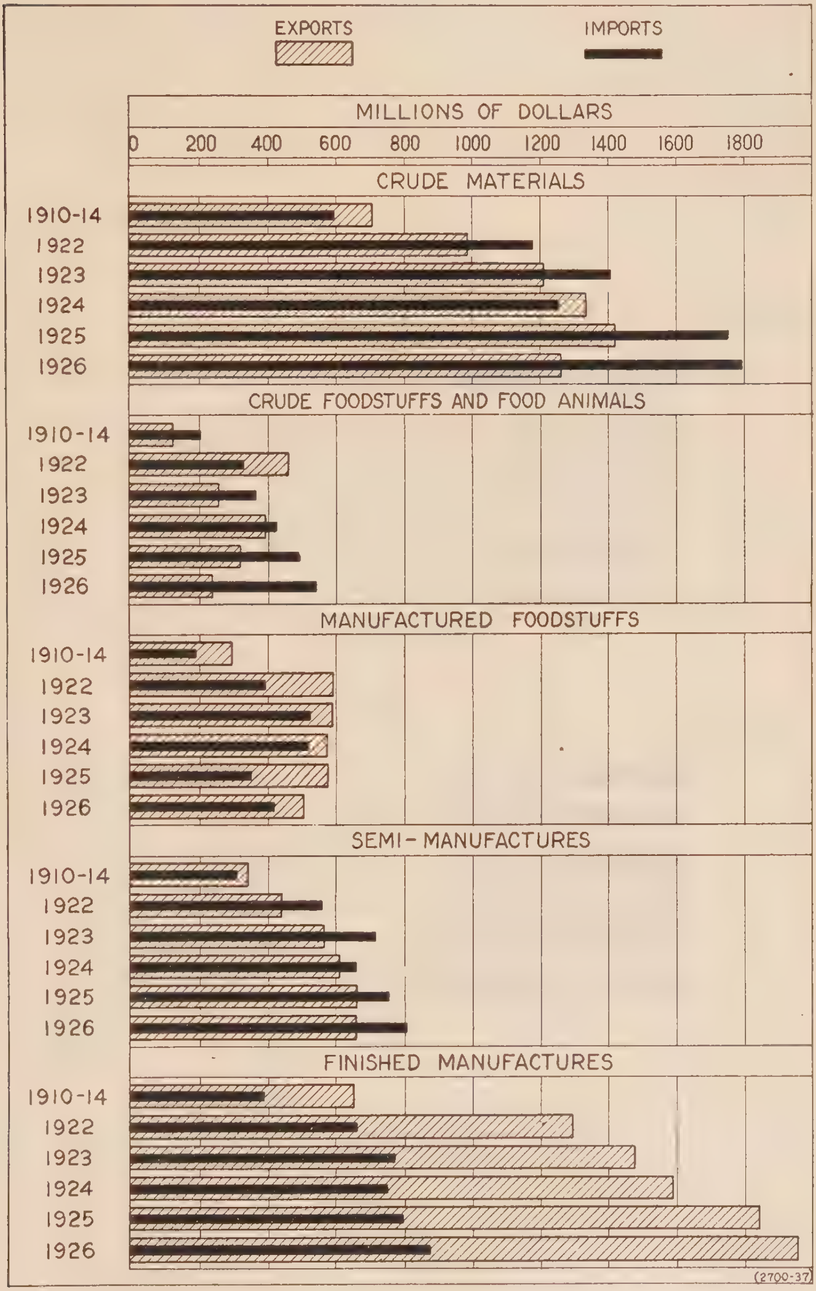
[1] Period July 1, 1915, to Dec. 31, 1920.

Table 13.—Increase or Decrease in Foreign Trade by Economic Classes

[Amounts in millions of dollars]

Class	Change in 1926 exports (domestic) from—				Change in 1926 imports from—			
	1910-1914		1925		1910-1914		1925	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Total	+2,581	+121.2	−107	−2.2	+2,742	+162.4	+204	+4.8
Crude materials	+548	+76.9	−161	−11.3	+1,198	+201.4	+45	+2.6
Crude foodstuffs	+209	+164.9	+17	+5.4	+336	+165.6	+45	+9.1
Manufactured foodstuffs	+208	+70.6	−71	−12.3	+223	+114.9	−15	−3.5
Semimanufactures	+314	+92.0	−6	−.9	+497	+161.9	+49	+6.5
Finished manufactures	+1,302	+199.0	+113	+6.1	+487	+125.1	+81	+10.1

Chart V.—DISTRIBUTION OF FOREIGN TRADE OF UNITED STATES BY ECONOMIC CLASSES



Imports of all economic classes except manufactured foodstuffs increased in value in 1926. The largest growth was shown by finished manufactures and crude foodstuffs, which increased 10 per cent and 9 per cent, respectively. Coffee was responsible for most of the increase in crude foodstuffs, whereas the growth of the manufactures group resulted from increased purchases of a large number of different commodities. A further decline in the price of sugar was primarily responsible for a decrease of 4 per cent in the value of manufactured foodstuffs.

Chart VI.—PERCENTAGE DISTRIBUTION OF TRADE BY ECONOMIC CLASSES

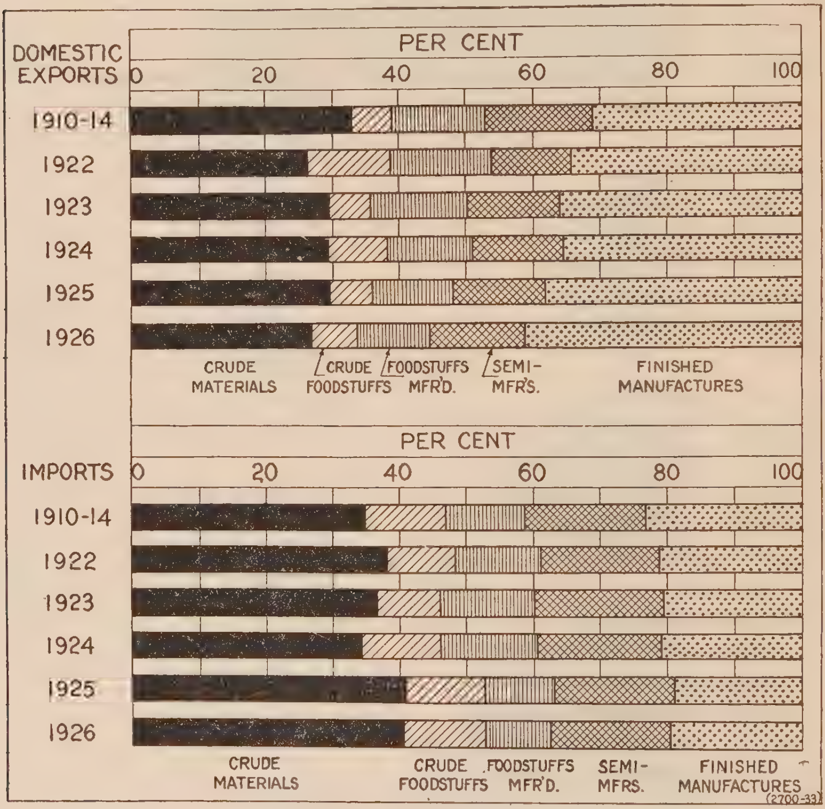


Chart VI and Table 12 indicate that finished manufactures have become much the most important group of exports in recent years and amounted to 41.5 per cent of the total in 1926, as compared with 30.7 per cent in 1910–1914, 34.3 per cent in 1922, and 38.3 per cent in 1925. This steady growth in the proportion of exports of manufactures is a natural consequence of the increasing importance of manufacturing in our total domestic production. Exports of crude materials and foodstuffs, on the other hand, are slowly declining in relative importance, while exports of semimanufactures have formed almost the same proportion of the total in each of the past four years.

The changes in relative importance of various classes of imports have been less pronounced than in the case of exports. There has been evident a general tendency for crude materials to increase in importance and for finished manufactures to decline, which is a logical result of America's great industrial development; but this change has been very gradual. During the year 1926, in fact, the ratio of crude materials to the total declined somewhat as a result of lower prices of silk, wool, and other materials, while our great prosperity and large purchasing power caused a further increase in imports of a large number of different manufactured articles. Our exports of finished manufactures are, however, at the present time two and one-quarter times as great as our imports of this class of merchandise.

Table 14.—Economic Character of the Foreign Trade, by Quarters

[Values in millions of dollars]

Class	1924				1925				1926			
	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.
Domestic exports	**1,079**	**961**	**1,015**	**1,443**	**1,251**	**1,069**	**1,117**	**1,382**	**1,098**	**1,056**	**1,179**	**1,378**
Crude materials	334	221	248	529	421	202	261	537	286	211	268	496
Crude foodstuffs	43	39	111	200	80	92	86	60	44	61	130	100
Manufactured foodstuffs	161	114	130	167	156	124	143	151	130	106	126	140
Semimanufactures	155	155	143	158	171	174	160	156	153	164	161	177
Finished manufactures	386	432	383	388	422	477	467	477	485	514	493	464
Imports	**948**	**901**	**820**	**940**	**1,065**	**999**	**1,016**	**1,147**	**1,247**	**1,055**	**1,019**	**1,110**
Crude materials	331	305	276	346	425	406	416	501	572	416	391	414
Crude foodstuffs	98	107	100	121	125	106	124	139	142	125	123	150
Manufactured foodstuffs	164	151	111	95	119	126	97	91	105	108	92	112
Semimanufactures	181	152	144	179	203	175	182	195	220	196	193	195
Finished manufactures	174	186	189	200	193	186	196	221	208	210	220	239

Quarterly changes in the foreign trade by economic classes are presented in Table 14 and monthly figures reduced to a daily average basis in Chart VII. In the last quarter of 1926 exports of crude materials (dominated by cotton) were exceptionally small and in the third and fourth quarters exports of crude foodstuffs showed the usual seasonal expansion on account of large shipments of wheat and fresh fruits. In the last quarter of 1926 imports of crude materials were $414,000,000 as compared with $572,000,000 in the first quarter, the decline being caused very largely by the lower price of rubber which averaged 77 cents and 39 cents in the two periods, respectively.

Chart VII.—DAILY AVERAGES OF EXPORTS AND IMPORTS BY ECONOMIC CLASSES

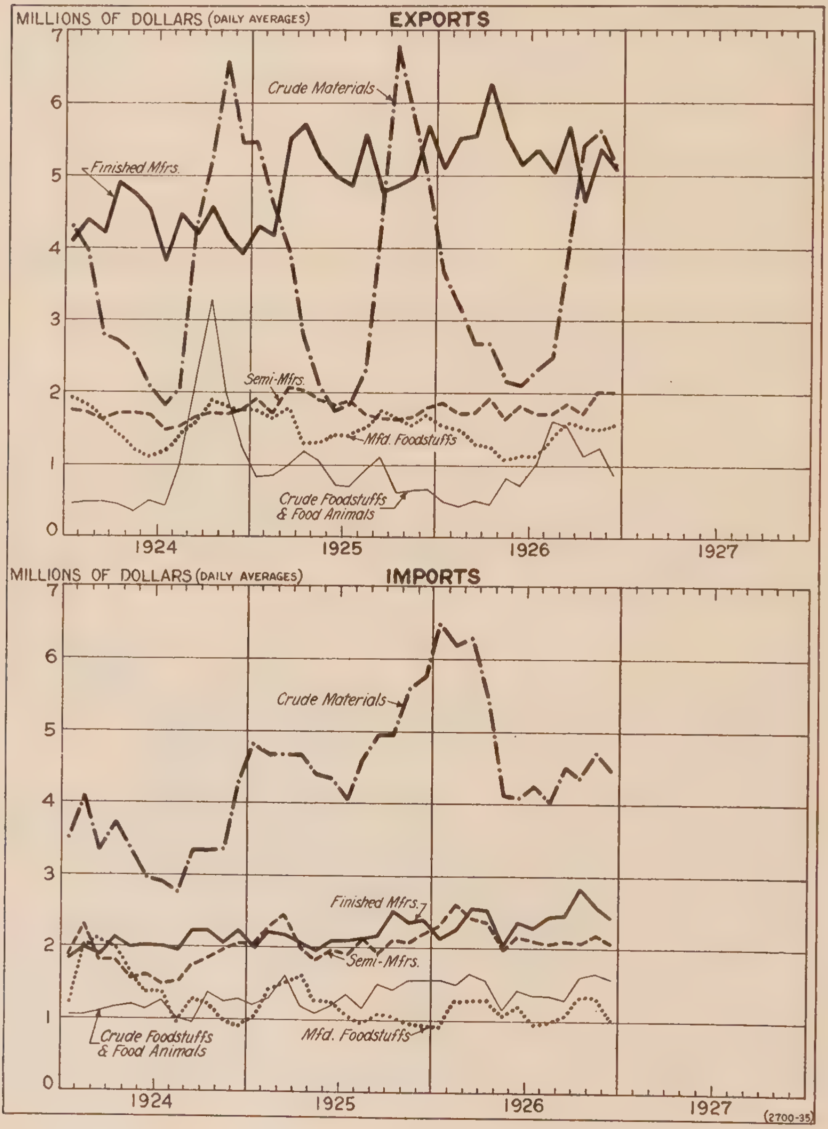


Table 15.—Exports (Domestic) of Leading Commodities

[Values in millions and tenths of millions of dollars, i. e., 00,000 omitted]

Commodity	Quantity				Value			
	1910–1914[1]	1921–1925	1925	1926	1910–1914[1]	1921–1925	1925	1926
Cotton, unmanufactured....million pounds..	4,420	3,420	4,384	4,692	551.9	805.0	1,059.8	814.4
Petroleum and products	-------	-------	-------	-------	127.7	405.1	473.0	554.2
Refined oils.............million gallons..	1,665	3,211	3,945	4,554	113.4	364.0	422.9	497,5
Crude oil.............do....	181	560	551	647	6.4	22.5	24.3	28.5
Machinery[2]	-------	-------	-------	-------	159.1	320.9	368.0	400.2
Electrical, and apparatus	-------	-------	-------	-------	21.1	69.1	73.8	84.2
Agricultural, and implements	-------	-------	-------	-------	37.9	52.1	77.6	85.7
Industrial	-------	-------	-------	-------	83.4	166.7	172.9	179.7
Automobiles, parts, and accessories[3] ....thousands..	19	150	303	305	23.4	177.2	318.4	320.2
Wheat and flour.............million bushels..	105	227	137	191	106.2	321.9	233.8	284.7
Wheat, grain.............do....	57	159	87	138	55.1	228.3	148.7	201.6
Packing-house products.....million pounds..	1,218	1,936	1,553	1,416	146.5	279.6	268.2	234.8
Meats.............do....	484	809	611	481	62.7	133.2	117.9	98.7
Fats and oils.............do....	734	1,126	942	935	83.8	146.4	150.3	136.1
Lard.............do....	474	861	689	699	52.1	115.6	118.1	108.6
Coal and coke.............million tons..	18	21	19	36	55.7	131.1	107.0	203.9
Iron and steel-mill products...thousand tons..	2,194	1,953	1,757	2,166	87.0	166.8	144.1	174.1
Copper, including ore and manufactures ....million pounds..	811	892	1,081	965	120.8	129.8	161.2	141.2
Tobacco, unmanufactured.............do....	392	503	477	487	44.8	164.6	153.8	136.9
Cotton manufactures, including yarns, etc	-------	-------	-------	-------	44.9	135.0	148.2	131.1
Cloth.............million square yards...	399	525	543	513	27.1	79.9	85.0	74.6
Fruits and nuts	-------	-------	-------	-------	28.7	82.9	102.0	111.8
Sawmill products	-------	-------	-------	-------	67.1	85.1	99.6	97.4
Boards and timber..million board feet..	2,704	2,145	2,502	2,695	61.5	83.9	99.0	96.6
Iron and steel advanced manufactures	-------	-------	-------	-------	47.4	68.4	76.2	75.7
Chemicals (coal-tar, industrial, medicinal)	-------	-------	-------	-------	21.0	56.2	59.7	65.2
Rubber and manufactures	-------	-------	-------	-------	12.4	38.6	51.3	59.2
Automobile casings.............thousands..	-------	[4] 1,392	1,628	1,497	-------	16.3	21.1	24.4
Leather	-------	-------	-------	-------	39.1	44.3	52.2	49.8
Wood manufactures, advanced	-------	-------	-------	-------	26.2	30.8	36.1	37.9
Naval stores, gums and resins	-------	-------	-------	-------	23.4	22.4	31.8	36.9
Paper, except printed matter	-------	-------	-------	-------	10.8	24.6	23.8	26.8
Oilcake and meal.............million pounds..	1,668	1,166	1,488	1,450	23.6	24.7	31.7	26.5
Furs and manufactures	-------	-------	-------	-------	14.7	22.5	26.6	23.2
Books and printed matter	-------	-------	-------	-------	9.2	19.9	21.0	21.9
Fish	-------	-------	-------	-------	9.7	18.0	20.7	19.9
Dairy products	-------	-------	-------	-------	3.3	30.1	23.6	19.0
Leather manufactures	-------	-------	-------	-------	19.0	21.8	20.6	18.5
Barley and malt.............million bushels..	8	26	34	17	5.3	24.4	32.6	13.8
Rye and flour.............do....	1	35	29	12	.6	39.5	37.5	12.4
Oats and oatmeal.............do....	10	21	38	19	4.2	11.9	22.1	11.9
Sugar, refined.............million pounds..	71	883	759	214	3.0	39.9	28.2	7.6

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[1] All data are for fiscal years except "iron and steel-mill products."
[2] Includes office appliances and printing machinery.
[3] The number is that of automobiles only; the value includes that of parts and accessories.
[4] Average for years 1922–1925.

Exports of Leading Individual Commodities.

The changes in value and quantity of our exports and imports of leading individual commodities are shown on Chart VIII and in Tables 15 and 16. Of the 35 export commodities and groups of commodities shown in Table 16 (excluding items which are partial duplications), 16 increased in value during 1926 while 19 decreased.

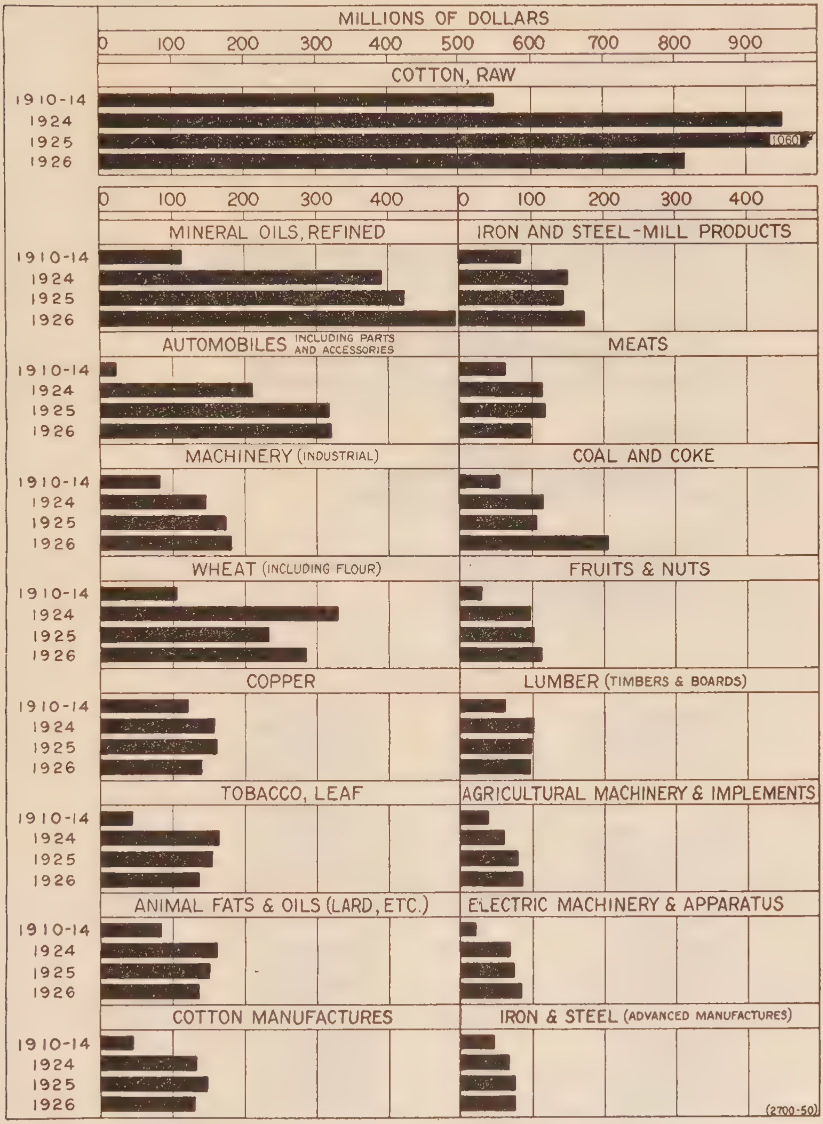
Table 16.—Per Cent Change in the Leading Domestic Exports and Percentage Which Each Forms of the Total Value of Exports

Commodity	Quantity		Value					
	Per cent change		Per cent change		Per cent of total exports			
	1910–1914 to 1926	1925 to 1926	1910–1914 to 1926	1925 to 1926	1910–1914	1921–1925	1925	1926
Cotton, unmanufactured	+6.1	+7.0	+47.6	−23.1	25.9	18.7	22.0	17.3
Petroleum and products	+181.8	+15.7	+333.9	+17.2	6.0	9.4	9.8	11.8
Refined oils	+173.6	+15.4	+338.6	+17.6	5.3	8.4	8.8	10.6
Crude oil	+257.8	+17.4	+346.5	+17.4	.3	.5	.5	.6
Machinery	--------	--------	+151.6	+8.7	7.5	7.4	7.6	8.5
Electrical, and apparatus	--------	--------	+299.3	+14.1	1.0	1.6	1.5	1.8
Agricultural, and implements	--------	--------	+126.2	+10.4	1.8	1.2	1.6	1.8
Industrial	--------	--------	+115.4	+3.9	3.9	3.9	3.6	3.8
Automobiles, parts, and accessories	+1,509.6	+.8	+1,270.5	+.6	1.1	4.1	6.6	6.8
Wheat and flour	+82.3	+40.2	+168.1	+21.8	5.0	7.5	4.9	6.0
Wheat, grain	+142.6	+59.6	+266.1	+35.6	2.6	5.3	3.1	4.3
Packing-house products	+16.3	−8.8	+60.3	−12.4	6.9	6.5	5.6	5.0
Meats	−.6	−21.3	+57.5	−16.3	2.9	3.1	2.4	2.1
Fats and oils	+27.4	−.7	+62.4	−9.4	3.9	3.4	3.1	2.9
Lard	+47.4	+1.5	+108.5	−8.0	2.4	2.7	2.5	2.3
Coal and coke	+98.3	+86.6	+265.9	+90.5	2.6	3.0	2.2	4.3
Iron and steel-mill products	−1.3	+23.3	+100.2	+20.8	4.1	3.9	3.0	3.7
Copper, including ore and manufactures	+19.0	−10.7	+16.9	−12.4	5.7	3.0	3.3	3.0
Tobacco, unmanufactured	+24.2	+2.0	+205.7	−11.0	2.1	3.8	3.2	2.9
Cotton manufactures, including yarns, etc.	--------	--------	+192.1	−11.6	2.1	3.1	3.1	2.8
Cloth	+28.8	−5.5	+175.8	−12.3	1.3	1.9	1.8	1.6
Fruits and nuts	--------	--------	+290.1	+9.6	1.3	1.9	2.1	2.4
Sawmill products	--------	--------	+45.3	−2.2	3.1	2.0	2.1	2.1
Boards and timber	−.3	+7.7	+57.1	−2.3	2.9	1.9	2.1	2.1
Iron and steel advanced manufactures	--------	--------	+59.6	−.7	2.2	1.6	1.6	1.6
Chemicals (coal-tar, industrial, medicinal)	--------	--------	+210.1	+9.2	1.0	1.3	1.2	1.4
Rubber and manufactures	--------	--------	+375.8	+15.3	.6	.9	1.1	1.3
Automobile casings	--------	−8.0	--------	+15.7	--------	.4	.4	.5
Leather	--------	--------	+27.4	−4.5	1.8	1.0	1.1	1.1
Wood manufactures, advanced	--------	--------	+44.5	+4.9	1.2	.7	.7	.8
Naval stores, gums and resins	--------	--------	+57.8	+15.9	1.1	.5	.7	.8
Paper, except printed matter	--------	--------	+147.5	+12.5	.5	.6	.5	.6
Oilcake and meal	−13.1	−2.6	+11.9	−16.4	1.1	.6	.7	.6
Furs and manufactures	--------	--------	+58.3	−12.7	.7	.5	.6	.5
Books and printed matter	--------	--------	+138.6	+4.3	.4	.5	.4	.5
Fish	--------	--------	+105.0	−4.0	.5	.4	.4	.4
Dairy products	--------	--------	+469.8	−19.3	.2	.7	.5	.4
Leather manufactures	--------	--------	−2.5	−9.9	.9	.5	.4	.4
Barley and malt	+108.5	−49.9	+163.0	−57.7	.2	.6	.7	.3
Rye and flour	+1,255.3	−58.3	+1,896.6	−67.0	(1)	.9	.8	.3
Oats and oatmeal	+99.0	−49.3	+186.6	−46.1	.2	.3	.5	.3
Sugar, refined	+201.2	−71.8	+155.0	−73.1	.1	.9	.6	.2

(1) Less than one-tenth of 1 per cent.

Exports of coal showed the largest increase in both quantity and value in consequence of the prolonged British coal strike which caused a great expansion in demand for American coal from Latin America and Asia as well as Europe. Other commodities which were exported in substantially larger volume were wheat, petroleum and products, agricultural implements, electrical apparatus, other machinery, iron and steel-mill products, chemicals, naval stores, and paper. Exports of raw cotton and tobacco increased in quantity but both, especially cotton, were very much smaller in value; while exports of automobile tires decreased in quantity but had a substantially larger aggregate value. There was a slight increase in the quantity and value of our exports of automobiles, parts, and accessories. Exports of sugar, meats, dairy products, barley, rye, oats, and copper decreased materially in both quantity and value. Refined sugar exports showed an exceptionally drastic decline, amounting to only about one-quarter of their 1925 volume. Practically all of our leading exports were larger in quantity, as well as in value, in the past year than in the average of the years 1910–1914.

Chart VIII.—VALUE OF LEADING DOMESTIC EXPORTS



Imports of Leading Individual Commodities.

The leading commodities in our import trade, shown in Tables 17 and 18 and Chart IX, showed very few changes of relative importance in 1926. Of the principal imports or groups of imports, 20 increased in value during 1926 and 11 decreased. Imports of coffee, paper, copper, oilseeds, diamonds, and cocoa beans increased substantially in quantity as well as value.

Chart IX.—VALUE OF LEADING IMPORTS

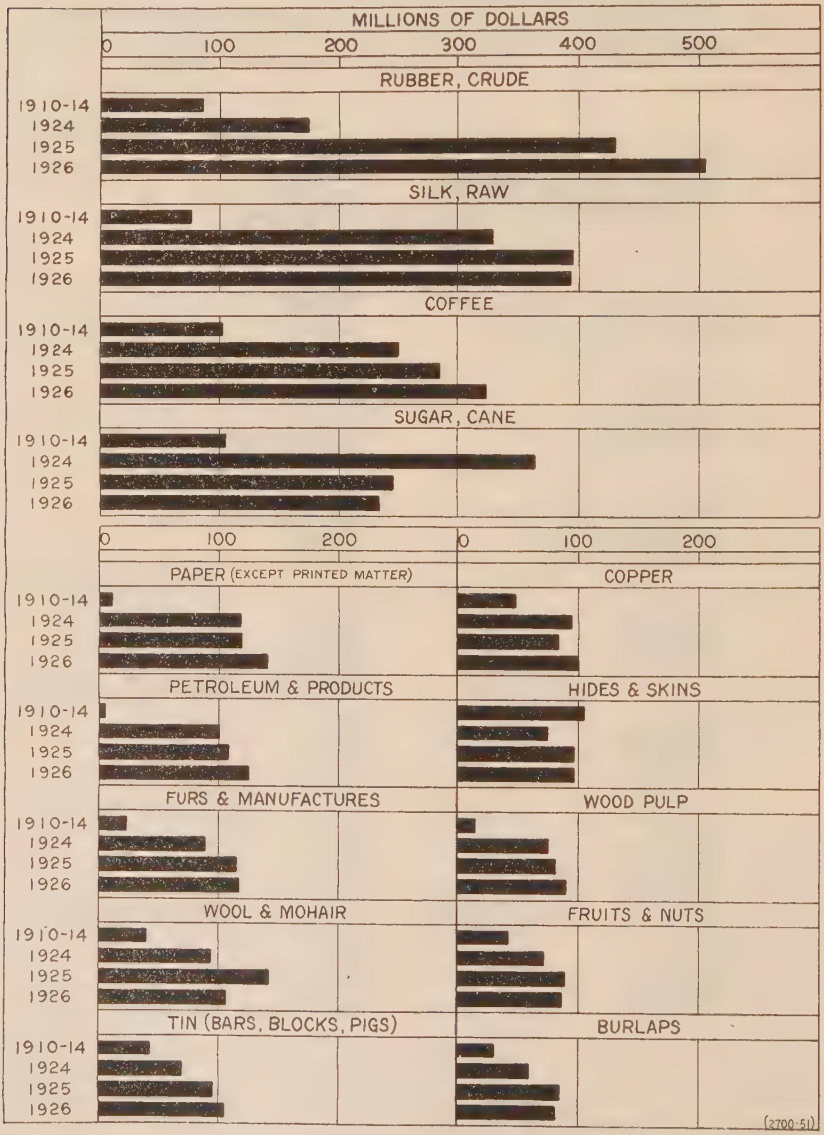


Table 17.—Imports of Leading Commodities

[Values in millions and tenths of millions of dollars; i. e., 00,000 omitted]

Commodity	Quantity				Value			
	1910–1914[1]	1921–1925	1925	1926	1910–1914[1]	1921–1925	1925	1926
Rubber, crude, million pounds	106	681	888	926	86.3	192.9	429.7	505.8
Silk, raw, do	24	52	64	66	77.1	348.1	396.3	392.8
Coffee, do	899	1,340	1,284	1,493	101.5	205.8	286.2	322.7
Sugar (cane), do	4,384	8,119	8,920	9,420	104.5	295.4	246.0	232.5
Paper, except printed matter	------	------	------	------	10.4	105.2	119.2	139.5
Newsprint, million pounds	238	2,375	2,897	3,701	4.8	90.9	103.7	124.0
Petroleum and products	------	------	------	------	6.2	90.8	107.7	124.6
Crude oil, million gallons	[2] 296	3,984	2,597	2,536	[2] 4.9	68.0	75.4	79.3
Refined products, do	[3] 17	527	686	878	[3] 1.5	22.2	31.3	44.6
Paper base stocks	------	------	------	------	27.5	94.2	118.8	121.5
Wood pulp, thousand tons	472	1,165	1,485	1,546	14.6	67.0	81.8	91.3
Furs and manufactures	------	------	------	------	23.1	79.8	115.3	117.4
Wool and mohair, million pounds	208	340	339	310	39.3	102.4	142.0	106.7
Tin (bars, blocks, and pigs), do	106	132	172	173	41.5	56.5	95.1	104.8
Copper, including ore and manufactures, do	369	598	653	778	47.8	77.8	84.3	99.7
Hides and skins, do	531	430	362	369	104.6	93.1	96.8	96.8
Fruits and nuts	------	------	------	------	42.3	75.5	88.7	87.3
Burlaps, million pounds	421	559	626	599	29.4	60.4	85.0	82.2
Vegetable oils, expressed, do	237	612	742	780	26.5	59.7	75.0	79.0
Sawmill products	------	------	------	------	20.9	68.4	78.2	74.6
Boards, planks, and deals, million feet	971	1,593	1,846	1,899	17.6	49.8	56.8	55.4
Wool manufactures, including yarns, etc	------	------	------	------	21.5	64.6	73.9	70.7
Oilseeds, million pounds	491	1,393	1,483	1,816	15.1	51.2	64.7	70.5
Flaxseed, thousand bushels	7,258	16,934	16,510	22,550	12.3	34.0	39.7	41.4
Fertilizers, thousand tons	863	1,609	2,268	2,083	40.7	56.9	78.1	69.2
Cotton manufactures, including yarns, etc	------	------	------	------	67.4	86.6	79.3	67.2
Diamonds, thousand carats	------	639	732	834	34.7	52.6	61.1	66.4
Tobacco, unmanufactured, million pounds	56	67	78	68	31.7	64.8	71.5	60.6
Chemicals (coal-tar, industrial, medicinal)	------	------	------	------	41.5	44.1	48.8	53.9
Art works	------	------	------	------	35.0	31.2	46.9	53.5
Silk manufactures, including waste	------	------	------	------	32.3	48.9	48.7	50.4
Flax, hemp, and ramie manufactures	------	------	------	------	31.8	44.8	47.6	48.5
Cotton, unmanufactured, million pounds	111	166	157	181	20.7	46.3	52.8	46.2
Cocoa beans, do	142	365	382	426	16.0	31.3	38.2	42.7
Vegetables and preparations	------	------	------	------	14.4	26.2	36.3	38.4
Tea, million pounds	95	94	101	96	16.7	25.3	31.5	31.3

[1] All data are for fiscal year.
[2] Includes a small quantity of refined products for years 1910–11.
[3] Average for years 1912–1914.

Crude rubber, which continued to be the most important commodity in the trade, was also imported in larger volume than in 1925. The average import price of crude rubber, which advanced to 80 cents in February, 1926, declined to 38 cents in October, but the average price for the year was 55 cents, as compared with 48 cents in 1925, and there was consequently a considerable increase in the total value of rubber imports. Imports of wool, fertilizers, and unmanufactured tobacco declined in 1926, while imports of silk, sugar, and raw cotton increased in quantity but were smaller in value than in 1925. Imports of nearly all leading commodities, except hides and skins, were much larger in 1926 than in pre-war years.

Table 18.—Per Cent Change in the Leading Imports and Percentage Which Each Forms of the Total Value of Imports

Commodity	Quantity		Value					
	Per cent change		Per cent change		Per cent of total imports			
	1910–1914 to 1926	1925 to 1926	1910–1914 to 1926	1925 to 1926	1910–1914	1921–1925	1925	1926
Rubber, crude	+775.7	+4.2	+485.8	+17.7	5.1	5.6	10.2	11.4
Silk, raw	+179.1	+4.2	+409.7	−.9	4.6	10.1	9.4	8.9
Coffee	+66.0	+16.3	+218.1	+12.8	6.0	6.0	6.8	7.3
Sugar (cane)	+114.9	+5.6	+122.4	−5.5	6.2	8.6	5.8	5.2
Paper, except printed matter	----------	-------	+34.7	+17.1	.6	3.1	2.8	3.1
Newsprint	+1,453.8	+27.8	+2,480.8	+19.5	.3	2.6	2.5	2.8
Petroleum and products	----------	-------	+1,892.3	+15.7	.4	2.6	2.5	2.8
Crude oil	+755.9	−2.3	+1,506.4	+5.2	.3	2.0	1.8	1.8
Refined products	[1]+4,924.5	+28.0	[1]+2,805.3	+42.6	.1	.6	.7	1.0
Paper base stocks	----------	-------	+341.6	+2.3	1.6	2.7	2.8	2.7
Wood pulp	+227.5	+4.1	+523.7	+11.5	.9	1.9	1.9	2.1
Furs and manufactures	----------	-------	+408.5	+1.8	1.4	2.3	2.7	2.6
Wool and mohair	+49.5	−8.5	+171.8	−24.8	2.3	3.0	3.4	2.4
Tin (bars, blocks, and pigs)	+62.8	+.7	+152.4	+10.2	2.5	1.6	2.3	2.4
Copper, including ore and manufactures	+110.9	+19.2	+108.5	+18.4	2.8	2.3	2.0	2.3
Hides and skins	−30.6	+1.7	−7.4	(2)	6.2	2.7	2.3	2.2
Fruits and nuts	----------	-------	+106.5	−1.5	2.5	2.2	2.1	2.0
Burlaps	+42.1	−4.3	+179.5	−3.3	1.7	1.8	2.0	1.9
Vegetable oils, expressed	+229.2	+5.1	+197.9	+5.4	1.6	1.7	1.8	1.8
Sawmill products	----------	-------	+256.2	−4.6	1.2	2.0	1.8	1.7
Boards, planks, and deals	+95.6	+2.9	+214.2	−2.6	1.0	1.4	1.3	1.2
Wool manufactures, including yarns, etc	----------	-------	+228.3	−4.4	1.3	1.9	1.7	1.6
Oilseeds	+270.2	+22.5	+366.0	+8.9	.9	1.5	1.5	1.6
Flaxseed	+210.7	+36.6	+235.8	+4.3	.7	1.0	.9	.9
Fertilizers	+141.4	−8.2	+70.0	−11.3	2.4	1.6	1.8	1.6
Cotton manufactures, including yarns, etc	----------	-------	−.4	−15.3	4.0	2.5	1.9	1.5
Diamonds	----------	+13.9	+91.5	+8.6	2.1	1.5	1.4	1.5
Tobacco, unmanufactured	+21.7	−12.6	+91.0	−15.2	1.9	1.9	1.7	1.4
Chemicals (coal-tar, industrial, medicinal)	----------	-------	+29.8	+10.5	2.5	1.3	1.2	1.2
Art works	----------	-------	+52.6	+14.1	2.1	.9	1.1	1.2
Silk manufactures, including waste	----------	-------	+56.1	+3.4	1.9	1.4	1.2	1.1
Flax, hemp, and ramie manufactures	----------	-------	+52.5	+2.0	1.9	1.3	1.1	1.1
Cotton, unmanufactured	+63.5	+15.8	+123.9	−12.4	1.2	1.3	1.2	1.0
Cocoa beans	+200.6	+11.6	+167.0	+11.8	.9	.9	.9	1.0
Vegetables and preparations	----------	-------	+166.6	+5.9	.9	.8	.9	.9
Tea	+.8	−5.0	+87.4	−.3	1.0	.7	.7	.7

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[1] Increase over 1912–1914 average.

[2] Increase of less than one-tenth of 1 per cent.

Tables 19 and 20 show the value of shipments to principal countries of destination for certain of our leading exports, and the value of shipments, by country of origin, for a number of our principal imports.

Table 19.—Principal Exports by Leading Countries of Destination

[Values in thousands of dollars]

Commodity and country	1910–1914	1925	1926
Hams, shoulders, and bacon	44, 993	86, 109	71, 651
Belgium	1, 584	2, 087	755
Germany	152	2, 372	1, 405
Netherlands	538	1, 003	646
United Kingdom	35, 633	64, 143	55, 715
Canada	1, 451	1, 476	1, 924
Cuba	1, 627	7, 066	5, 020
Lard	52, 098	118, 090	108, 600
Belgium	1, 852	2, 778	1, 728
France	1, 236	744	584
Germany	15, 683	33, 043	30, 910
Italy	492	4, 794	905
Netherlands	4, 052	6, 074	7, 208
United Kingdom	18, 403	36, 258	34, 766
Mexico	795	8, 451	7, 522
Cuba	4, 601	13, 223	12, 037
Corn, grain	25, 231	14, 253	19, 840
Netherlands	3, 178	741	2, 538
United Kingdom	6, 805	838	1, 876
Canada	5, 200	6, 134	7, 403
Cuba	1, 640	2, 728	1, 714
Mexico	1, 811	2, 903	3, 982
Rye, grain	598	37, 241	12, 282
Germany	65	8, 327	606
Netherlands	141	4, 295	834
Norway	--------	3, 330	1, 339
Canada	23	10, 945	8, 301
Wheat, grain	55, 063	148, 717	201, 739
Belgium	7, 135	13, 389	10, 015
France	2, 979	14, 384	13, 290
Germany	6, 088	4, 302	10, 473
Italy	2, 411	26, 394	12, 293
Netherlands	8, 244	10, 607	21, 759
United Kingdom	20, 463	29, 405	55, 215
Canada	1, 742	29, 613	37, 566
Mexico	1, 204	2, 213	2, 887
China	8	662	1, 091
Japan	1, 994	5, 441	11, 040
Wheat, flour	51, 127	85, 067	83, 133
Germany	991	8, 574	4, 554
United Kingdom	13, 753	8, 742	9, 497
Netherlands	4, 290	6, 620	8, 279
Central America	2, 225	4, 486	4, 222
Cuba	4, 246	9, 815	8, 734
Other West Indies	4, 406	5, 220	4, 921
Philippine Islands	1, 126	4, 148	4, 137
Brazil	3, 016	6, 193	7, 574
China	1, 022	1, 446	3, 066
Hongkong	4, 441	2, 827	2, 809
Sugar, refined	2, 969	28, 160	7, 570
France	(1)	1, 024	426
United Kingdom	1, 626	13, 647	968
Uruguay	(1)	2, 530	1, 481
Leaf tobacco	44, 788	153, 351	136, 675
France	4, 083	2, 894	4, 256
Germany	4, 585	5, 125	5, 416
Netherlands	2, 426	4, 868	5, 602
Italy	5, 148	2, 877	1, 383
United Kingdom	15, 760	84, 405	67, 333
Canada	2, 346	3, 417	4, 214
China	1, 085	19, 100	20, 547
Japan	440	3, 299	2, 379
Australia	2, 180	8, 333	8, 895
Cigarettes	2, 823	15, 043	17, 898
China	989	9, 283	12, 066
Straits Settlements	1, 211	1, 692	1, 268
Cotton, raw	551, 890	1, 059, 751	814, 429
France	68, 783	117, 567	95, 581
Germany	154, 456	246, 315	175, 114
Italy	31, 293	91, 493	76, 594
Spain	17, 147	39, 497	29, 739
Russia in Europe	5, 508	41, 061	32, 783
United Kingdom	221, 708	304, 418	208, 358
Japan	18, 548	120, 888	107, 860
Cotton cloth	27, 052	85, 012	74, 598
Canada	1, 615	6, 872	7, 422
Mexico	294	4, 496	2, 807
Cuba	1, 467	10, 041	9, 780
Haiti	1, 500	4, 709	2, 240
Argentina	184	3, 938	3, 478
Colombia	963	6, 072	4, 492
Philippine Islands	4, 187	11, 513	13, 362
Central America	2, 068	8, 655	6, 820
Chile	731	3, 491	3, 227
Coal, anthracite	18, 183	31, 761	41 086
Canada	17, 885	31, 016	40, 274
Coal, bituminous	34, 455	68, 403	155, 839
France	139	1, 097	2, 933
Italy	1, 014	3, 535	8, 108
Brazil	584	2, 714	6, 522
Canada	23, 961	51, 595	52, 203
Cuba	2, 835	2, 828	2, 494
Gasoline and naphtha	16, 735	197, 492	263, 557
France	1, 770	33, 478	41, 255
United Kingdom	2, 207	45, 060	83, 323
Canada	3, 511	12, 353	13, 257
Brazil	765	8, 538	8, 546
Argentina	1, 890	6, 730	5, 773
Australia	967	16, 428	16, 929
New Zealand	656	8, 592	9, 383
Netherlands	855	5, 108	9, 843
Illuminating oil	64, 098	84, 700	99, 184
France	2, 758	3, 683	6, 298
Netherlands	6, 222	4, 669	5, 625
United Kingdom	8, 511	6, 434	9, 835
Brazil	2, 989	3, 985	4, 419
British India	2, 651	3, 976	5, 764
China	6, 058	17, 561	14, 986
Japan	4, 659	8, 580	13, 690
Australia	2, 447	3, 723	4, 039
Fuel and gas oil [2]	11, 027	49, 040	45, 354
Italy	222	1, 989	472
Germany	231	1, 879	1, 694
United Kingdom	5, 439	7, 194	9, 272
Canada	2, 063	6, 847	5, 296
Mexico	20	1, 210	974
Chile	1, 145	6, 688	4, 289
Japan	(1)	2, 220	2, 214
Panama	567	5, 564	5, 647
Lubricating oil	25, 270	91, 063	86, 822
Belgium	1, 456	5, 118	4, 353
France	2, 901	14, 198	12, 044
Germany	2, 949	7, 442	6, 005
United Kingdom	6, 490	17, 548	17, 026
Italy	1, 019	5, 611	4, 686
Copper, refined, in ingots, bars, rods [3]	112, 377	148, 319	128, 088
Belgium	992	13, 575	11, 475
France	19, 233	21, 192	25, 244
Germany	32, 909	33, 156	21, 803
Italy	5, 722	18, 238	11, 718
Netherlands	26, 868	13, 363	9, 085
United Kingdom	16, 773	31, 741	28, 498
China	47	1, 746	1, 060
Japan	--------	1, 181	5, 279
Canada	1, 479	4, 613	4, 017
Automobiles and trucks	19, 330	222, 589	223, 561
United Kingdom	3, 605	18, 736	7, 840
Canada	6, 220	15, 359	24, 365
Mexico	451	10, 092	8, 285
Argentina	749	22, 240	19, 165
Brazil	470	11, 125	12, 893
Australia	1, 595	40, 290	44, 329
Japan	146	1, 253	1, 892
Cuba	237	6, 061	4, 504
British Africa	642	13, 649	14, 949
Spain	77	6, 953	6, 193

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[1] Less than $500.

[2] Averages shown in 1910-1914 column are for years 1913 and 1914.

[3] The figures for 1910-1914 include old and scrap, and plates and sheets and are larger than they would be on the present basis of classification.

Table 20.—Principal Imports of the United States, by Leading Countries of Origin

[Values in thousands of dollars]

Commodity and country	1910–1914	1925	1926
Cheese and substitutes	8,795	17,349	21,084
France	839	1,548	1,349
Italy	3,950	8,576	10,348
Switzerland	2,958	5,571	5,218
Cattle hides	42,469	26,695	22,103
France	2,830	768	452
Canada	4,691	4,891	4,331
Argentina	12,782	15,195	12,237
Uruguay	2,274	397	1,182
Colombia	952	1,308	959
Sheep and lamb skins	11,025	23,459	18,795
United Kingdom	5,030	4,455	3,192
Argentina	610	3,625	2,812
New Zealand	750	6,272	5,032
Goat and kid skins	24,575	33,196	39,084
Spain	211	1,771	2,224
Brazil	2,043	2,524	2,539
British India	8,034	11,091	14,100
China	2,613	4,309	6,020
Furs, undressed	14,767	101,593	107,250
Belgium	1,186	4,026	5,474
Germany	5,480	6,607	8,881
United Kingdom	3,190	19,966	21,852
Canada	2,044	11,914	11,927
Argentina	11	3,453	3,588
China	133	15,450	15,101
Australia	650	10,657	11,829
France	782	4,368	4,478
Wheat, grain	1,032	19,343	19,691
Canada	1,001	19,341	19,687
Flaxseed	12,324	39,683	41,383
Canada	6,435	14,382	6,053
Argentina	3,578	25,167	34,936
Cocoa or cacao beans	16,009	38,246	42,749
Dominican Republic	2,706	3,802	4,237
British West Indies	4,242	4,660	5,351
Brazil	1,775	6,633	8,814
Ecuador	1,911	5,411	3,355
British West Africa	1	11,055	12,847
Coffee	101,455	286,235	322,746
Mexico	4,522	7,049	7,206
Brazil	73,424	184,793	199,663
Colombia	7,849	54,915	74,279
Venezuela	5,736	13,364	12,829
Central America	4,383	13,839	20,148
Tea	16,732	31,454	31,349
United Kingdom	3,180	9,334	8,173
China	2,898	2,586	3,016
Japan	7,957	6,456	6,898
British East Indies	1,721	9,357	9,152
Sugar (cane)	103,517	246,008	232,530
Cuba	91,686	199,780	198,895
Philippine Islands	5,827	42,130	29,606
Rubber, crude	86,345	429,705	505,818
United Kingdom	27,511	47,951	33,536
Brazil	29,991	16,174	11,845
British East Indies	7,183	282,180	362,356
Dutch East Indies	90	65,639	87,157
Tobacco, unmanufactured	31,704	71,464	60,570
Turkey	7,857	5,582	5,530
Greece	241	20,396	11,425
Netherlands	7,148	14,769	14,485
Cuba	15,144	23,111	23,338
Cotton, unmanufactured	20,651	52,775	46,240
United Kingdom	1,590	1,582	2,088
Mexico	824	2,661	5,934
Peru	957	2,572	1,616
British India	278	2,995	1,894
China	925	4,366	2,275
Egypt	15,874	37,874	32,205
Cotton cloth	9,041	26,424	16,258
France	1,649	1,020	851
United Kingdom	6,261	21,988	12,130
Japan	175	790	329
Burlaps	29,421	85,028	82,238
United Kingdom	5,049	9,256	8,513
British India	24,084	72,744	70,734
Wool and mohair, unmanufactured	39,260	141,957	106,721
United Kingdom	14,874	29,514	23,057
Argentina	5,340	15,097	12,519
Uruguay	1,060	13,425	12,845
China	4,071	17,736	5,935
Australia	4,384	35,919	24,546
British South Africa	47	4,209	6,980
Silk, raw	77,058	396,286	392,760
France	704	1,407	667
Italy	10,007	12,121	6,480
China	12,839	54,339	50,118
Japan	52,641	317,753	328,903
Boards, planks, etc	17,623	55,055	53,774
Canada	16,912	54,296	52,773
Pulp wood	6,399	15,130	14,176
Canada	6,399	14,992	14,104
Chemical wood pulp	11,432	73,317	82,974
Finland	83	4,014	5,015
Norway	3,068	5,817	5,856
Sweden	3,154	24,538	29,203
Canada	1,994	33,388	35,162
Germany	2,649	3,796	5,623
Standard newsprint	4,804	103,717	123,982
Germany	80	1,606	767
Sweden	19	3,946	2,749
Canada	4,393	94,254	111,924
Crude petroleum[1]	4,937	75,407	79,308
Mexico	4,013	64,646	46,778
Colombia	--------	--------	7,264
Venezuela	--------	1,585	6,870
Dutch West Indies	--------	4,740	9,690
Peru	289	4,159	7,029
Diamonds (cut, not set)	24,699	49,621	51,362
Belgium	10,294	21,337	20,876
Netherlands	9,655	25,264	27,079
Copper, unrefined, including ore[2]	47,748	69,157	79,801
Canada	6,200	12,513	13,300
Mexico	14,217	12,857	14,458
Chile	4,329	13,934	8,288
Peru	6,499	8,060	10,175
Portuguese Africa	--------	11,996	10,389
Spain	4,660	2,982	4,906
Tin (bars, blocks, etc.)	41,511	95,121	104,793
United Kingdom	22,678	22,607	29,330
Straits Settlements	14,853	60,612	56,327
Sodium nitrate	17,615	52,531	42,781
Chile	17,069	51,842	41,885

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[1] Includes small quantity of refined products for years 1910–11.

[2] The figures for 1910–1914 include a small quantity of refined, old and clippings, and composition metal and are larger than they would be on the present basis of classification.

GEOGRAPHICAL DISTRIBUTION OF TRADE

The increase in United States import trade and decrease in value of exports which occurred in 1926 was accompanied by a number of important changes in the geographical distribution of our foreign commerce. A larger part of our total export trade went to South America and Oceania in 1926 than in any previous year. Shipments to Europe, for the first time in the history of the United States, amounted to less than one-half of the value of the export trade, while imports from that continent formed a smaller proportion of our total imports than in any years on record except 1916 to 1920, when European production was much curtailed as a result of the World War. The decline in our exports to Europe was very largely a result of a sharp decline in the price of raw cotton, the principal commodity in the trade. Other noteworthy developments were large increases in our exports to southern and southeastern Asia; a marked decrease in exports to southern North America, caused primarily by the reduced purchasing power of Cuba; and increases in the value of our imports from all continents except Oceania.

Chart X.—PERCENTAGE DISTRIBUTION OF FOREIGN TRADE, BY CONTINENTS

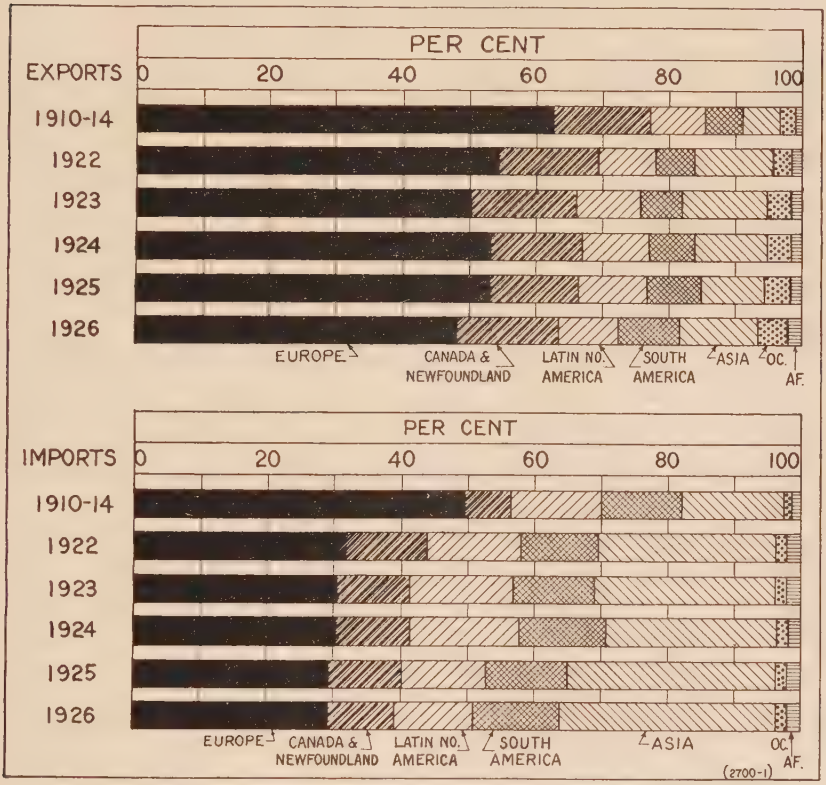


Table 21.—Foreign Trade by Continents and Great Trade Regions

(Data cover period beginning July 1, 1876, and ending December 31, 1926. Hawaiian Islands are included in Oceania prior to 1901; the Philippine Islands are in Asia for all years. See Table 1, p. 84, for total value)

[Values in millions of dollars]

Yearly average or year	North America				South America		Europe		Asia		Oceania		Africa	
	Northern		Southern											
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
EXPORTS														
1876–1880	34	5.0	36	5.4	22	3.3	562	83.1	11	1.7	7	1.1	4	0.6
1881–1885	43	5.4	45	5.7	28	3.6	642	81.0	18	2.2	13	1.6	4	.5
1886–1890	39	5.2	43	5.8	32	4.3	586	79.3	20	2.8	15	2.0	3	.5
1891–1895	49	5.5	61	6.8	33	3.7	709	79.5	21	2.3	14	1.6	5	.6
1896–1900	80	6.9	65	5.6	36	3.1	887	76.7	45	3.9	26	2.3	17	1.5
1901–1905	125	8.6	98	6.7	46	3.2	1,051	72.3	77	5.3	30	2.0	28	1.9
1906–1910	181	10.2	155	8.7	82	4.6	1,213	68.2	97	5.5	32	1.8	18	1.0
1911–1915	337	14.2	182	7.7	122	5.2	1,517	64.0	133	5.6	52	2.2	27	1.1
1915–1920 [1]	780	12.0	504	7.7	361	5.5	4,124	63.2	562	8.6	109	1.7	82	1.3
1921–1925	627	14.3	445	10.1	297	6.8	2,318	52.7	499	11.3	141	3.2	70	1.6
1910–1914 (fiscal)	320	14.8	181	8.4	121	5.6	1,350	62.3	121	5.6	48	2.2	25	1.1
1913 (calendar)	409	17.0	192	8.0	147	5.9	1,500	60.0	154	5.7	54	2.2	29	1.2
1921	600	13.4	529	11.8	273	6.1	2,364	52.7	533	11.9	113	2.5	73	1.6
1922	583	15.2	332	8.7	226	5.9	2,083	54.4	449	11.7	102	2.7	56	1.5
1923	661	15.8	426	10.2	269	6.5	2,093	50.2	511	12.3	146	3.5	61	1.5
1924	634	13.8	456	9.9	314	6.8	2,445	53.3	515	11.2	157	3.4	70	1.5
1925	659	13.4	480	9.8	403	8.2	2,604	53.0	487	9.9	189	3.9	89	1.8
1926	748	15.5	429	8.9	444	9.2	2,310	48.0	565	11.7	213	4.4	101	2.1
IMPORTS														
1876–1880	28	5.6	87	17.6	68	13.8	248	50.3	56	11.3	5	.9	2	.5
1881–1885	42	6.3	96	14.4	76	11.4	368	55.1	70	10.5	11	1.7	4	.6
1886–1890	40	5.6	99	13.8	82	11.5	402	56.0	74	10.4	16	2.3	3	.5
1891–1895	36	4.6	128	16.3	117	14.9	398	50.6	85	10.8	16	2.1	5	.6
1896–1900	37	5.0	76	10.3	98	13.2	390	52.6	108	14.6	23	3.1	10	1.3
1901–1905	53	5.4	130	13.3	122	12.5	498	51.3	150	15.4	9	.9	11	1.1
1906–1910	80	5.9	180	13.4	157	11.7	690	51.3	205	15.2	17	1.2	17	1.2
1911–1915	131	7.7	249	14.5	220	12.8	798	46.6	271	15.8	19	1.1	24	1.4
1915–1920 [1]	425	12.7	588	17.5	591	17.6	682	20.3	910	27.1	70	2.1	91	2.7
1921–1925	397	11.5	514	14.9	421	12.2	1,049	30.4	943	27.3	54	1.6	71	2.1
1910–1914 (fiscal)	119	7.0	229	13.5	207	12.2	836	49.5	259	15.3	17	1.0	23	1.3
1913 (calendar)	143	6.7	246	13.2	198	12.0	865	49.2	299	16.4	17	.9	24	1.5
1921	338	13.5	417	16.6	296	11.8	765	30.5	618	24.6	35	1.4	40	1.6
1922	367	11.8	456	14.6	359	11.5	991	31.8	827	26.6	49	1.6	65	2.1
1923	418	11.0	583	15.4	467	12.3	1,157	30.5	1,020	26.9	59	1.6	87	2.3
1924	402	11.1	593	16.4	466	12.9	1,096	30.4	931	25.8	49	1.4	73	2.0
1925	459	10.9	522	12.3	519	12.3	1,238	29.3	1,319	31.2	78	1.8	92	2.2
1926	486	10.9	526	11.9	568	12.8	1,286	29.0	1,401	31.6	68	1.5	96	2.2

[1] Period July 1, 1915, to Dec. 31, 1920.

Distribution of Trade by Continents.

Europe continues to take a much greater share of our export trade than any other continent in consequence of its large population of relatively high purchasing power. Its proportion to the total trade, however, has been declining for over 30 years. Exports to Europe, which amounted to 79.5 per cent of the total in 1891–1895, declined to 72.3 per cent in 1901–1905, to 64 per cent in 1911–1915, and to 52.7 per cent in 1921–1925. This ratio showed a further decline to 48 per cent in 1926, which was the first year on record in which less than half of the United States exports were shipped to Europe. The decrease in the relative importance of Europe in our export trade is a natural consequence of the transformation of the United States from an agricultural to a predominantly industrial nation. Exports to each of the other continents increased in relative importance during 1926, the largest gain being shown by Asia. South America and Oceania each had a larger proportion of the total export trade in 1926 than in any earlier year.

Asia furnished a larger part of our imports in 1926 than any other continent. Its proportion of the total, 31.6 per cent, was larger than in any previous year and was over twice as great as in the average of the pre-war years 1910–1914. South America also furnished a slightly larger share of our import trade in 1926, while the shares of Europe, North America, and Oceania were smaller than in 1925.

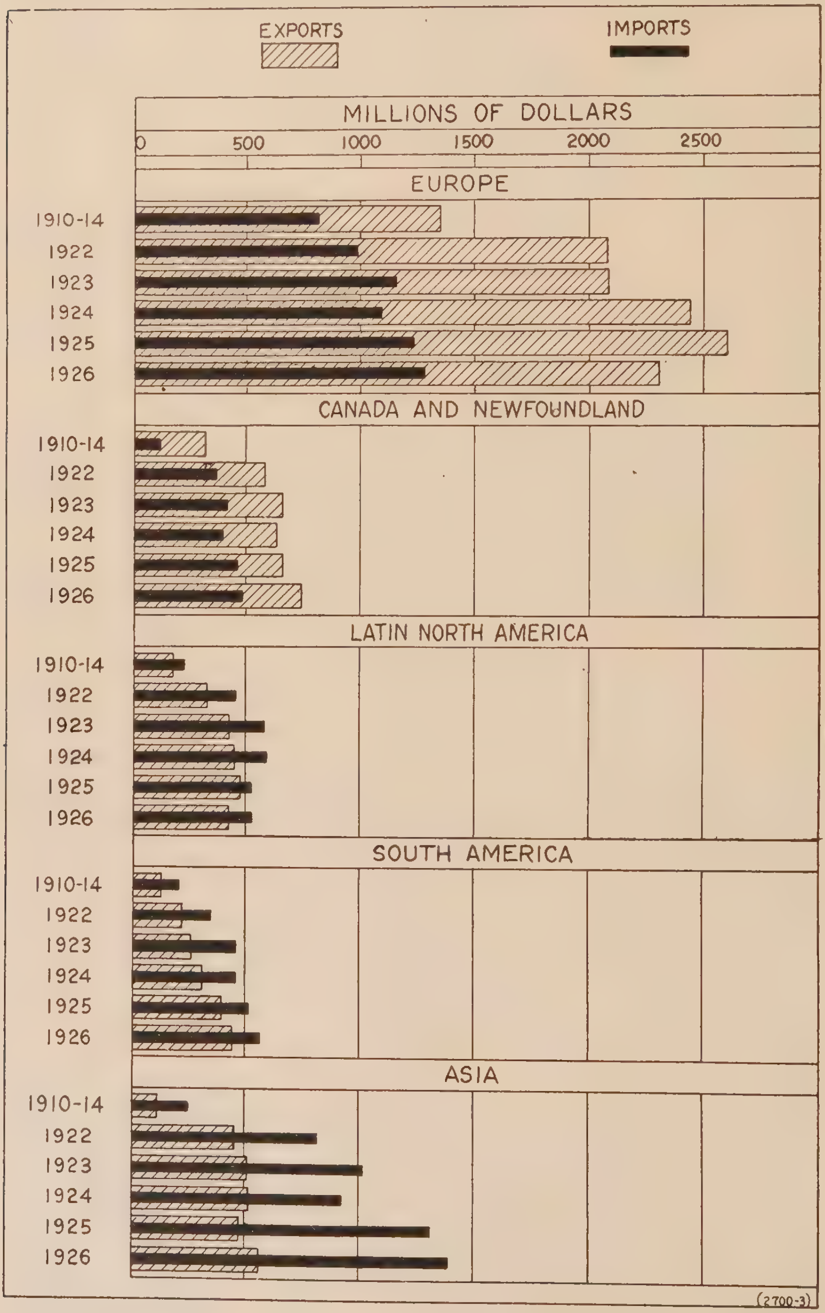
Growth of Exports by Continents.

During the past 15 years there have been very large increases in the value of both export and import trade with every continent. These increases, however, have been much exaggerated by the general advance in price levels, so that a comparison of changes by continents or other geographical regions is much more significant than the absolute magnitude of the increases. Chart XI furnishes a comparison of changes for those continents which are most important in the foreign commerce of the United States.

In 1926, as in most other recent years, exports to Asia, Africa, Oceania, and South America showed an exceptionally large growth while exports to Europe were considerably smaller in value than in 1925 as a result of the lower price of cotton and the general curtailment of purchases by Germany and the United Kingdom, two of our largest customers. Exports to North America showed only a moderate increase, the purchasing power of the southern part of the continent being reduced as a result of the low price of sugar.

Exports to Asia and Oceania were about four and one-half times as large in value in 1926 as in 1910–1914, and exports to Africa and South America also showed very large gains. Finished manufactures formed the bulk of this great expansion in our shipments to the newer or less industrially developed parts of the world. Exports to North America have also showed a very large actual growth as compared with pre-war years, but the percentage was not as great as in the case of the continents previously mentioned, because we have always had a highly developed trade with our immediate neighbors. The gain in value of our exports to Europe since 1910–1914 only amounts to 71 per cent which is less than that for any other continent and may be very largely ascribed to price advances. The relatively slight increase in the volume of European purchases in the United States

Chart XI.—MERCHANDISE EXPORTS AND IMPORTS, BY CONTINENTS



has been a natural result of the tremendous economic losses which that continent suffered from the war, and which have prevented a normal expansion in its purchasing power.

Table 22.—Increase or Decrease in Foreign Trade, by Continents and Great Trade Regions

[Amounts in millions of dollars]

Continent	Exports in 1926 compared with—				Imports in 1926 compared with—			
	1910–1914		1925		1910–1914		1925	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Total	+2,643	+122.0	−101	−2.1	+2,742	+162.4	+204	+4.8
North America:								
Northern	+428	+133.7	+89	+13.5	+367	+309.7	+27	+5.8
Southern	+248	+136.9	−50	−10.5	+297	+130.1	+4	+.8
South America	+322	+266.5	+41	+10.2	+361	+174.6	+49	+9.5
Europe	+959	+71.1	−294	−11.3	+449	+53.7	+48	+3.9
Asia	+444	+366.4	+78	+16.0	+1,142	+441.7	+81	+6.2
Oceania	+165	+345.8	+23	+12.3	+51	+295.6	−9	−12,2
Africa	+76	+310.4	+12	+13.5	+74	+327.2	+4	+4.6

Expansion in Import Trade from all Continents.

Imports from all continents except Oceania were larger in 1926 than in 1925. The largest relative increase, amounting to 9.5 per cent, was shown by the imports from South America and may be ascribed almost entirely to the larger quantities of coffee purchased from Colombia and Brazil. A substantial decrease in the quantity and value of wool imported from Australia was the chief cause of the 12 per cent decrease in our imports from Oceania.

Imports from Asia have shown an amazing growth in the years since 1910–1914, as a result of the enormous increase in our use of rubber, which has been largely supplied by plantations in the southeastern part of that continent, and our steadily expanding consumption of silk, most of which is imported from Japan and China. The constantly increasing demands of American factories for raw materials have also been largely responsible for the great expansion in imports from Africa, Oceania, and northern North America. Imports from Oceania and Africa were about four times as great in value in 1926 as in 1910–1914, much of this growth resulting from large purchases of raw wool from Australia, New Zealand, and South Africa, and of long-staple cotton from Egypt. The great expansion in our demand for wood pulp and newsprint largely accounts for the increase in our imports from northern North America. Imports from Europe were only 54 per cent greater than in the pre-war period, the smallest increase shown by any continent.

Balance of Trade by Continents.

The dollar value of the United States balance of trade with various continents changes considerably from year to year, as is indicated by

Table 23. Exports to Europe, northern North America, and Oceania have exceeded imports in all recent years, while imports from southern North America, South America, and Asia have been substantially larger than exports. This is the natural consequence of a triangular trade movement whereby the United States imports quantities of raw materials and foodstuffs from Asia and Latin America and sells large quantities of other raw materials and foodstuffs to Europe. The European countries in turn export large quantities of their own manufactures to Asia and Latin America, which create credits that are used in payment for our imports from those regions.

Table 23.—Balance of Trade, by Continents and Great Trade Regions

Continent	Excess of exports (+) or imports (−) in millions of dollars						Per cent imports are of exports					
	1910–1914	1921–1925	1923	1924	1925	1926	1910–1914	1921–1925	1923	1924	1925	1926
Total	**+477**	**+947**	**+375**	**+981**	**+681**	**+378**	**78.0**	**78.5**	**91.0**	**78.6**	**86.1**	**92.1**
North America:												
Northern	+201	+231	+242	+232	+200	+262	37.0	63.2	63.3	63.4	69.7	65.0
Southern	−47	−70	−158	−137	−42	−97	126.2	115.7	137.0	130.0	108.8	122.5
South America	−86	−124	−198	−152	−116	−124	170.9	141.8	173.6	148.3	128.9	128.1
Europe	+514	+1,268	+936	+1,349	+1,365	+1,024	61.9	45.3	55.3	44.8	47.6	55.7
Asia	−137	−444	−508	−416	−834	−836	213.6	189.1	199.4	180.9	271.9	248.1
Oceania	+30	+87	+87	+108	+112	+144	36.2	38.2	40.4	31.3	41.1	32.1
Africa	+2	−2	−26	−3	−3	+5	91.6	102.5	143.5	103.8	103.5	95.4

During the last few years there has been a general tendency for the ratio of imports to exports to increase. During 1926 the per cent of imports to exports increased for southern North America and Europe but decreased for all other continents. In the case of South America there has been a general upward tendency for a number of years. The ratio of imports to exports for Asia declined from 2.72 in 1925 to 2.48 in 1926, but our trade with Asia continued to show a much larger excess of imports than was the case for any other continent.

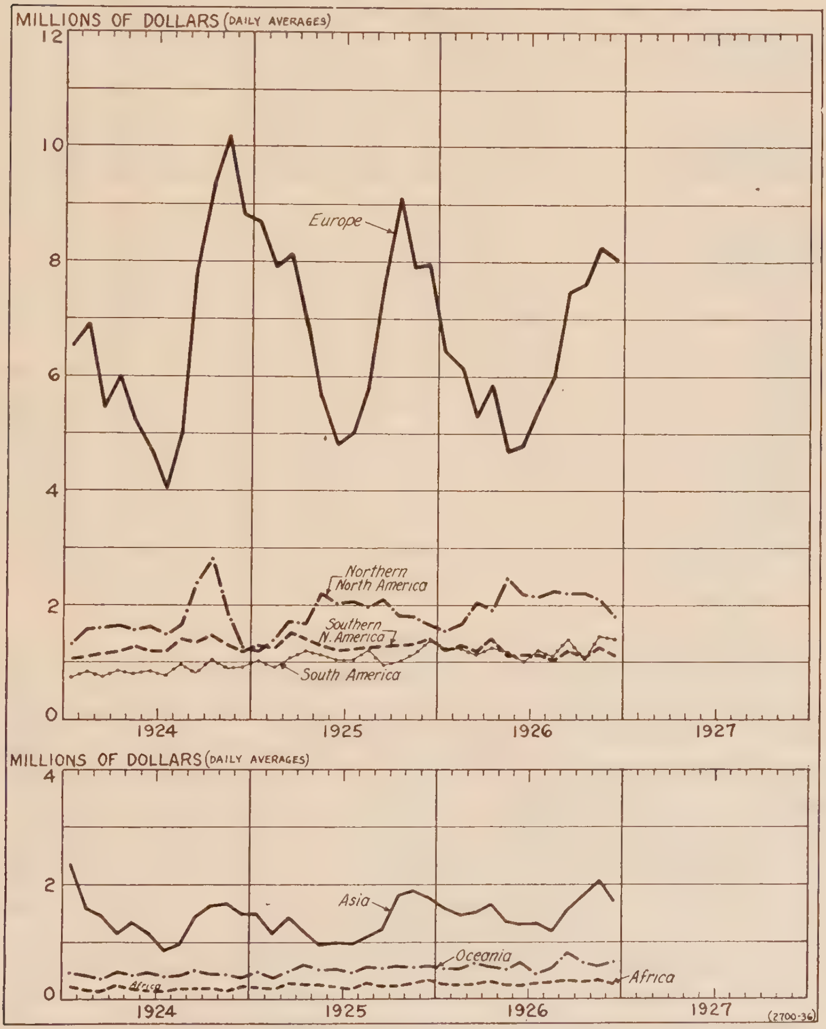
Table 24.—Continent Distribution of Foreign Trade, by Quarters

[Values in millions of dollars]

Continent	1924				1925				1926			
	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.
Exports	**1,101**	**989**	**1,035**	**1,466**	**1,271**	**1,093**	**1,140**	**1,407**	**1,124**	**1,083**	**1,201**	**1,401**
North America	238	258	290	304	253	296	304	285	267	310	305	294
South America	72	76	78	90	91	103	99	110	108	103	113	119
Europe	573	484	518	869	744	527	566	766	536	466	576	732
Asia	164	111	92	148	123	95	100	168	138	131	125	171
Oceania	38	41	40	38	40	49	48	52	50	51	54	57
Africa	17	18	17	18	21	21	22	25	24	23	27	27
Imports	**948**	**901**	**820**	**940**	**1,065**	**999**	**1,016**	**1,147**	**1,247**	**1,055**	**1,019**	**1,110**
North America	288	267	225	216	252	268	225	237	257	257	237	262
South America	119	112	106	129	145	116	128	130	169	128	128	143
Europe	272	248	261	315	316	279	294	349	333	298	310	344
Asia	221	246	212	253	291	292	342	394	428	327	314	330
Oceania	20	13	8	9	27	22	13	16	20	22	14	13
Africa	29	15	9	19	34	22	15	21	40	23	16	18

Changes in the geographic distribution of trade by quarters, are shown in Table 24, while the movement of exports by months reduced to a daily average basis is indicated by Chart XII. The export trade with Europe is highly seasonal; the fall peak in 1926 was less marked than in the two previous years on account of the marked decrease in the price and value of cotton exports.

Chart XII.—DAILY AVERAGE EXPORTS, BY CONTINENTS



Large shipments of cotton to Japan are responsible for the seasonal rise of exports to Asia in the fall. In the quarterly imports from Asia can be traced the effect of the fluctuations in the price of rubber. The price of rubber rose steadily from July, 1925, through February, 1926, and declined during the remainder of the year.

Table 25.—Foreign Trade with Each Continent, by Economic Classes

NOTE.—Years 1905-1909 and 1910-1914 are fiscal years ending June 30; 1921-1925, calendar years.

Continent and class	Millions of dollars									
	Domestic exports					Imports				
	1905-1909	1910-1914	1921-1925	1925	1926	1905-1909	1910-1914	1921-1925	1925	1926
Total	1,707	2,130	4,310	4,819	4,712	1,257	1,689	3,450	4,227	4,431
Crude materials	536	713	1,189	1,422	1,261	428	595	1,293	1,748	1,792
Foodstuffs	480	421	1,021	892	838	299	398	832	928	958
Semimanufactures	238	342	535	662	656	218	307	606	756	805
Finished manufactures	454	654	1,565	1,843	1,957	311	389	720	796	877
North America	298	483	1,029	1,079	1,113	244	347	911	981	1,012
Crude materials	57	86	166	123	184	77	114	220	246	224
Foodstuffs	60	86	241	227	220	109	157	412	374	385
Semimanufactures	36	70	123	142	156	40	46	149	177	190
Finished manufactures	145	241	500	587	554	18	30	131	184	212
South America	74	121	294	400	441	148	207	421	519	568
Crude materials	1	3	8	6	16	57	79	131	146	157
Foodstuffs	9	13	26	38	43	73	99	206	281	317
Semimanufactures	12	22	46	65	68	17	27	78	90	89
Finished manufactures	53	83	214	291	314	1	2	5	2	4
Europe	1,178	1,334	2,279	2,576	2,281	637	836	1,049	1,238	1,286
Crude materials	460	595	873	1,117	876	167	229	240	338	307
Foodstuffs	386	300	696	577	513	76	101	107	127	130
Semimanufactures	174	230	264	357	300	138	196	261	321	361
Finished manufactures	157	209	446	525	591	255	309	441	451	488
Asia and Oceania	139	168	638	674	776	213	276	997	1,397	1,469
Crude materials	17	27	135	170	176	113	151	655	962	1,049
Foodstuffs	18	18	51	43	54	40	41	95	130	109
Semimanufactures	14	17	96	90	124	23	37	105	148	140
Finished manufactures	90	106	356	371	421	36	47	142	157	171
Africa	18	25	70	89	101	15	23	71	92	96
Crude materials	1	2	6	6	9	15	22	46	55	56
Foodstuffs	6	4	8	7	8	(1)	(1)	11	16	16
Semimanufactures	2	3	6	7	8	(1)	(1)	13	20	24
Finished manufactures	10	16	49	69	76	(1)	(1)	1	1	1

[1] Less than $500,000.

Foreign Trade of Each Continent, by Economic Classes.

Table 25 and the percentage Tables 26 and 27 distribute the trade with each of the continents according to the five great economic classes. The percentages bring out both the part which each class plays in the trade of each continent, and also the share of each continent in the total trade of a given class. As might be expected, finished manufactures dominate in our exports to South America, Asia, Oceania, and Africa, representing much more than half of the total trade with each of these continents. Nearly half of the total exports to North America also consists of finished manufactures, but in the trade with Europe less than one-fifth of the total is of that class. Foodstuffs are the most important class in our imports from the North and South American continents, while crude materials dominate in those from Asia and Oceania and from Africa. As might be expected, finished manufactures constitute a larger proportion than any other group in our imports from Europe; such manufactures are also important in our purchases from Asia and North America but relatively insignificant in imports from South America and Africa.

Table 26. Per Cent Each Continent Takes or Furnishes of Total Trade in Each Economic Class

Continent	Crude materials			Foodstuffs			Semimanufactures			Finished manufactures		
	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926
Exports, domestic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North America	12.1	14.0	14.6	20.4	23.5	26.2	20.6	22.9	23.7	36.8	31.9	28.3
South America	.4	.7	1.3	3.1	2.5	5.1	6.4	8.6	10.3	12.7	13.7	16.1
Europe	83.4	73.5	69.5	71.1	68.1	61.2	67.3	49.3	45.8	32.0	28.5	30.2
Asia and Oceania	3.8	11.4	13.9	4.3	5.0	6.4	5.0	18.0	19.0	16.2	22.7	21.5
Africa	.3	.5	.7	1.0	.8	1.0	.7	1.1	1.1	2.4	3.1	3.9
Imports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North America	19.2	17.0	12.5	39.4	49.5	40.2	15.1	24.5	23.6	7.7	18.1	24.2
South America	13.3	10.2	8.8	24.9	24.8	33.1	8.7	12.9	11.1	.6	.7	.5
Europe	38.6	18.6	17.1	25.4	12.9	13.6	64.0	43.1	44.9	79.5	61.2	55.6
Asia and Oceania	25.4	50.7	58.5	10.2	11.4	11.4	12.1	17.3	17.4	12.1	19.7	19.5
Africa	3.6	3.6	3.1	.1	1.3	1.7	.1	2.2	3.0	.1	.1	.1

Table 27. Per Cent Each Class Makes of Total Trade for Each Continent

Class	North America			South America			Europe			Asia and Oceania		
	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926	1910–1914	1921–1925	1926
Exports, domestic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Crude materials	17.8	16.1	16.5	2.2	2.7	3.6	44.6	38.3	38.4	16.1	21.2	22.7
Foodstuffs	17.8	23.4	19.7	10.9	8.8	9.8	22.5	30.5	22.5	10.8	7.9	7.0
Semimanufactures	14.6	11.9	14.0	18.1	15.7	15.3	17.2	11.6	13.2	10.2	15.1	16.0
Finished manufactures	49.8	48.6	49.7	68.7	72.9	71.3	15.7	19.6	25.9	62.9	55.8	54.3
Imports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Crude materials	32.9	24.2	22.1	38.1	31.2	27.7	27.4	22.9	23.8	54.7	65.7	71.4
Foodstuffs	45.1	45.2	38.1	47.8	49.0	55.8	12.1	10.2	10.1	14.7	9.5	7.4
Semimanufactures	13.4	16.3	18.8	13.0	18.5	15.7	23.5	24.9	28.1	13.5	10.5	9.5
Finished manufactures	8.7	14.3	21.0	1.1	1.3	.7	37.0	42.0	37.9	17.1	14.2	11.6

Of our total exports of crude materials during the five years 1921–1925, nearly three-fourths (73.5 per cent) went to Europe, a proportion, however, considerably lower than before the war. More than two-thirds of our exports of foodstuffs go to Europe and nearly half of the semimanufactures. North American countries constitute the largest single group of markets for our exports of finished manufactures, though followed closely by Europe. Of our imports of crude materials during 1921–1925, more than half have come from Asia and Oceania, and of imports of foodstuffs nearly half from North America. Europe furnished during this period more than two-fifths of our total imports of semimanufactures and more than three-fifths of the imports of finished manufactures. The proportion for Europe in all classes of exports, and also in all classes of imports, has been lower in recent years than before the war. The share of Asia in furnishing imports of crude materials was twice as high from 1921 to 1925 as in the pre-war period.

Trade by Commercial Regions.

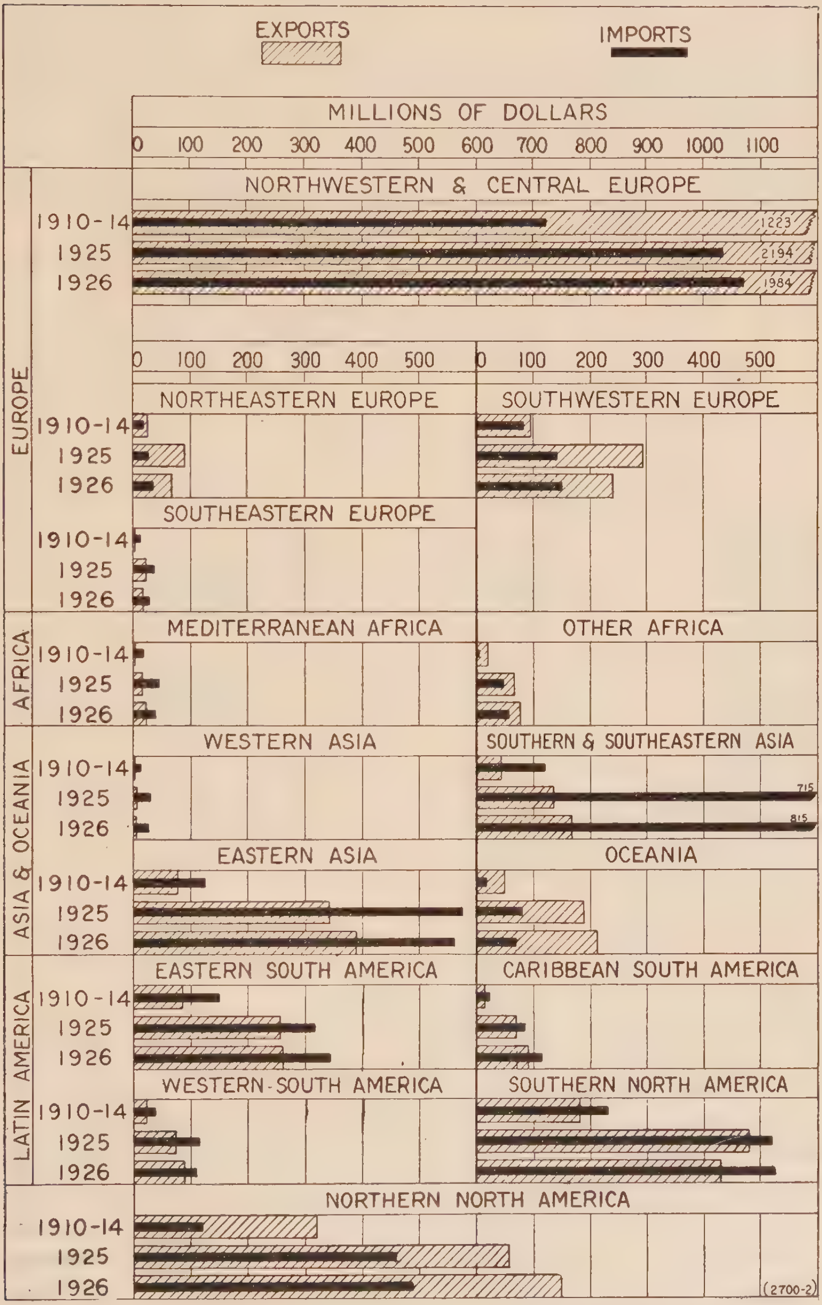
A more detailed picture of the geographic distribution of the United States foreign trade may be obtained by dividing each continent into commercial regions which are based largely on trade routes. In most cases these regions consist of countries which are more or less similar as regards geographic conditions, character of people and of industries, and type of goods imported or exported. Chart XIII and Tables 28 and 29 show the trade by commercial regions in 1926, as compared with pre-war years and with 1925. The regions showing the largest increases in exports for 1926 as compared with 1925 were Caribbean South America, Mediterranean Africa, southern and southeastern Asia, and the west coast of South America. Large shipments of automobiles and various types of machinery have been important factors in the expansion of export trade to each of these regions. The increase in shipments to the northern part of South America was a result of the development of oil fields, with large investments by American corporations, and of the prosperity which has resulted from the increased growth of coffee in that region.

Exports to every commercial region, except northwestern and central Europe, were over twice as large in value in 1926 as in the average of the years 1910–1914. Exports to Caribbean South America were over seven times as large as in the pre-war years, while exports to eastern Asia, Mediterranean Africa, Oceania, and southern and southeastern Asia were four or five times their pre-war value.

Table 28.—Foreign Trade of the United States, by Commercial Regions

Region	Total exports in millions of dollars						Total imports in millions of dollars					
	1910–1914	1921–1925	1923	1924	1925	1926	1910–1914	1921–1925	1923	1924	1925	1926
North America:												
1. Northern	320	627	661	634	659	748	119	397	418	402	459	486
2. Southern	181	445	426	456	480	429	229	514	583	593	522	526
South America:												
3. Caribbean	13	44	37	48	70	92	23	66	61	76	85	115
4. East Coast	85	193	174	201	258	263	148	251	282	262	319	343
5. West Coast	23	60	58	65	74	88	36	104	125	128	115	110
Europe:												
6. Northwestern and central	1,223	1,961	1,799	2,096	2,194	1,984	724	885	984	924	1,036	1,070
7. Northeastern	26	58	36	58	90	67	19	18	20	24	27	35
8. Southwestern	96	268	239	268	296	240	80	115	130	110	140	151
9. Southeastern	5	31	19	23	24	18	14	32	23	37	35	30
Asia and Oceania:												
10. Western Asia	3	8	5	6	7	6	14	21	18	22	29	26
11. Southern and southeastern Asia	41	119	104	120	135	167	120	425	443	431	715	815
12. Eastern Asia	78	372	403	389	344	392	125	497	559	477	575	559
13. Oceania	48	141	146	157	189	213	17	54	59	49	78	68
Africa:												
14. Mediterranean	5	21	16	16	18	24	18	36	42	33	45	39
15. Other Africa	20	49	44	55	71	77	4	35	45	40	47	57
Latin America (groups 2, 3, 4, 5)	302	742	695	770	882	873	435	936	1,051	1,059	1,041	1,094
Far East (groups 11, 12, 13)	166	632	653	666	669	771	262	976	1,061	957	1,368	1,443

Chart XIII.—FOREIGN TRADE BY COMMERCIAL REGIONS



The largest gains in imports during 1926 were shown by Caribbean South America and northeastern Europe, while the principal decrease was from southeastern Europe. Imports from Africa other than Mediterranean, southern and southeastern Asia, Caribbean South America, and eastern Asia have shown exceptionally large increases since 1910–1914. Wool and cacao have been largely responsible for the increase in imports from other Africa; rubber for the increase from southeastern Asia; coffee and petroleum for the increase from Caribbean South America; and silk for the increase from eastern Asia.

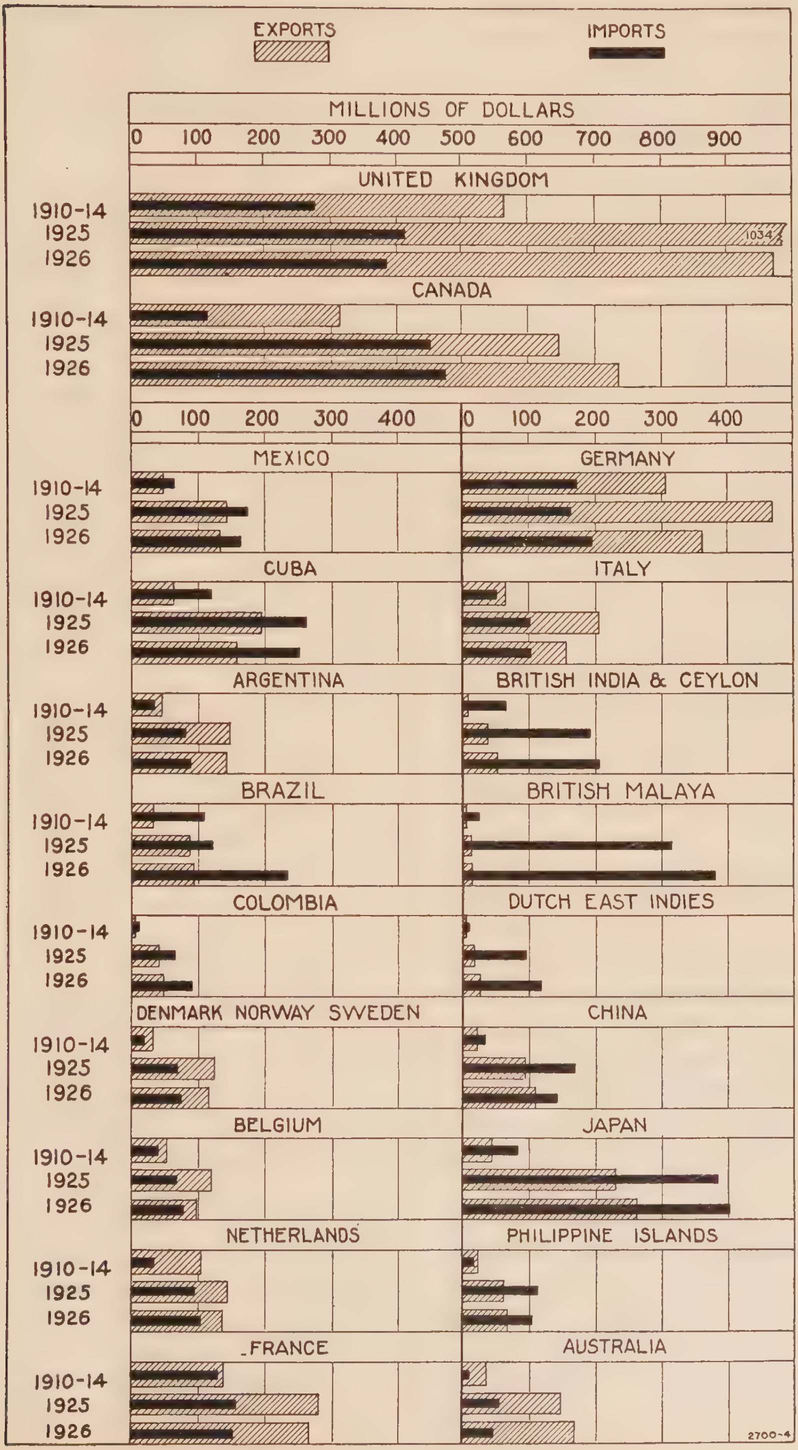
Table 29.—Percentage Distribution of Trade and Per Cent Change, by Commercial Regions

Region	Per cent of total exports				Per cent of total imports				Per cent change 1926 from—			
									1910–1914		1925	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports	Exports	Imports
North America:												
1. Northern	14.8	14.3	13.4	15.5	7.0	11.5	10.9	11.0	+133.7	+309.7	+13.5	+5.8
2. Southern	8.4	10.1	9.8	8.9	13.5	14.9	12.3	11.9	+136.9	+130.1	−10.5	+.8
South America:												
3. Caribbean	.6	1.0	1.4	1.9	1.3	1.9	2.0	2.6	+605.8	+410.9	+31.8	+35.9
4. East coast	3.9	4.4	5.3	5.5	8.8	7.3	7.5	7.7	+210.5	+131.0	+1.8	+7.4
5. West coast	1.1	1.4	1.5	1.8	2.1	3.0	2.7	2.5	+279.6	+206.0	+18.9	−4.2
Europe:												
6. Northwestern and central	56.5	44.6	44.7	41.3	42.9	25.7	24.5	24.2	+62.2	+47.9	−9.6	+3.3
7. Northeastern	1.2	1.3	1.8	1.4	1.1	.5	.6	.8	+158.8	+81.4	−26.0	+27.5
8. Southwestern	4.5	6.1	6.0	5.0	4.7	3.3	3.3	3.4	+149.0	+89.8	−18.7	+7.6
9. Southeastern	.2	.7	.5	.4	.8	.9	.8	.7	+265.0	+114.3	−23.2	−14.6
Asia and Oceania:												
10. Western Asia	.1	.2	.1	.1	.8	.6	.7	.6	+135.6	+93.2	−13.4	−9.4
11. Southern and southeastern Asia	1.9	2.7	2.8	3.5	7.1	12.3	16.9	18.4	+310.6	+580.7	+23.4	+13.9
12. Eastern Asia	3.6	8.5	7.0	8.1	7.4	14.4	13.6	12.6	+403.2	+346.6	+13.7	−2.7
13. Oceania	2.2	3.2	3.9	4.4	1.0	1.6	1.8	1.5	+345.8	+295.6	+12.3	−12.2
Africa:												
14. Mediterranean	.2	.5	.4	.5	1.1	1.1	1.1	.9	+382.3	+117.7	+30.2	−12.5
15. Other Africa	.9	1.1	1.4	1.6	.3	1.0	1.1	1.3	+292.5	+1,174.0	+9.3	+21.0
Latin America (groups 2, 3, 4, 5)	14.0	16.9	18.0	18.2	25.8	27.1	24.6	24.7	+188.8	+151.2	−1.1	+5.1
Far East (groups 11, 12, 13)	7.7	14.4	13.6	16.9	15.5	28.3	32.4	32.6	+364.0	+450.2	+15.3	+5.5

Changes in Export Trade by Leading Countries.

The exports and imports of the 28 countries which are most important in the foreign commerce of the United States are shown in Tables 30 and 31, and the same information for most of these countries is graphically portrayed on Chart XIV. Of these 28 countries 16 showed increases in exports in 1926 as compared with 1925, while 12 showed decreases. Exports to Venezuela showed the largest increase, amounting to 58 per cent, as a result of the great development of oil fields in that country during the past year. The prosperity attendant on the high price of rubber resulted in substantially larger exports to the Dutch East Indies, British Malaya, and Ceylon. Exports to Peru, Chile, and Colombia also showed a large expansion

Chart XIV.—MERCHANDISE TRADE WITH LEADING COUNTRIES



in consequence of the ever-increasing demand for a multitude of different articles manufactured in the United States. Exports of electrical machinery to Chile were about three times as large as in 1925 and exports of iron and steel products showed a substantial growth. An increase in lumber exports was an important factor in the expansion of our trade with Peru.

Table 30.—Merchandise Exports to and Imports from the Leading Countries

[Values in millions and tenths of millions of dollars; i. e., 00,000 omitted]

Country	Exports				Imports				Rank	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports
United Kingdom	567.6	940.9	1,033.9	972.6	278.9	356.0	412.7	383.2	1	4
Canada	315.0	619.0	648.8	738.5	117.2	393.8	454.2	475.9	2	1
Germany	304.1	383.2	470.3	364.2	176.5	132.5	164.3	198.5	3	8
France	138.8	265.2	280.3	264.0	130.1	147.9	157.4	152.0	4	10
Japan	45.3	242.0	229.6	260.8	85.0	335.4	384.2	400.7	5	2
Australia	38.7	111.3	148.5	168.7	12.3	37.5	55.1	45.7	6	22
Cuba	63.0	181.3	198.7	160.5	122.1	299.6	261.7	250.6	7	5
Italy	66.0	185.2	205.2	157.4	51.1	79.1	102.2	102.5	8	14
Argentina	47.2	117.0	148.8	143.6	32.9	83.3	80.2	88.1	9	17
Netherlands	104.6	138.2	141.5	135.8	34.9	70.6	92.5	101.9	10	15
Mexico	53.1	146.3	144.7	135.0	70.5	147.5	178.8	169.3	11	9
Denmark, Norway, Sweden	33.2	110.1	124.4	116.3	20.2	58.6	68.6	74.6	12	20
China	21.6	104.2	94.4	110.2	35.3	142.0	168.9	143.2	13	11
Belgium	53.1	111.3	120.3	99.3	40.4	58.3	69.0	77.8	14	19
Brazil	31.5	59.9	87.5	95.4	110.9	152.2	221.6	235.3	15	6
Central America	37.6	58.7	72.8	75.5	17.4	36.4	42.6	48.9	16	21
Philippine Islands	22.6	51.9	61.1	68.6	19.4	80.1	111.8	103.8	17	13
Spain	26.2	70.5	79.2	68.2	21.6	29.6	32.8	41.4	18	23
British India and Ceylon	11.3	39.6	40.7	52.6	66.3	136.1	192.7	206.7	19	7
British South Africa	12.9	31.4	46.2	51.1	2.5	9.3	9.2	19.8	20	26
Colombia	5.8	25.9	41.4	49.3	11.9	49.4	63.4	90.2	21	16
Chile	13.9	30.1	39.3	49.0	22.9	77.2	89.2	81.4	22	18
Russia in Europe	23.5	31.7	68.2	48.5	19.1	4.6	12.9	13.5	23	28
New Zealand	7.8	28.2	38.4	41.6	3.8	13.8	19.7	18.8	24	27
Venezuela	4.5	14.6	25.2	39.7	9.1	14.9	19.6	23.3	25	24
Peru	6.0	20.9	23.0	29.4	9.8	19.0	17.2	21.8	26	25
Dutch East Indies	3.1	17.2	19.2	27.6	9.2	55.0	95.8	119.6	27	12
British Malaya	2.9	8.1	11.4	13.6	24.6	153.3	314.0	383.8	28	3

Shipments of American goods to Germany and Italy were much smaller in value than in 1925, owing to a definite effort on the part of those countries to restrict importation, and exports to Cuba were much curtailed on account of the reduced buying power of the population which has resulted from the continued low price of sugar. The decrease of about 6 per cent in exports to the United Kingdom, our most important customer, may be ascribed entirely to the sharp decline in the average price of raw cotton, and this was also a very important factor in the decreases in value of exports to other European countries. Exports of many kinds of finished manufactures to European countries, on the other hand, have either increased or at least held their own during the past year.

Exports to Canada showed an exceptionally large increase in 1926, amounting to 14 per cent. Shipments of automobiles and coal to Canada showed particularly large increases in value.

Table 31.—Percentage Distribution and Per Cent Change, by Leading Countries

Country	Per cent of total exports				Per cent of total imports				Per cent change			
									1926 compared with 1910–1914		1926 compared with 1925	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports	Exports	Imports
United Kingdom	26.2	21.4	21.1	20.2	16.5	10.3	9.8	8.6	+71.3	+37.4	−5.9	−7.2
Canada	14.5	14.1	13.2	15.4	6.9	11.4	10.7	10.7	+134.4	+306.0	+13.8	+4.8
Germany	14.0	8.7	9.6	7.6	10.4	3.8	3.9	4.5	+19.7	+12.5	−22.6	+20.8
France	6.4	6.0	5.7	5.5	7.7	4.3	3.7	3.4	+90.0	+16.8	−5.9	−3.4
Japan	2.1	5.5	4.7	5.4	5.0	9.7	9.1	9.0	+475.7	+371.4	+13.5	+ 4.3
Australia	1.8	2.5	3.0	3.5	.7	1.1	1.3	1.0	+335.7	+271.5	+13.6	−17.0
Cuba	2.9	4.1	4.0	3.3	7.2	8.7	6.2	5.7	+154.6	+105.3	−19.2	−4.2
Italy	3.0	4.2	4.2	3.3	3.0	2.3	2.4	2.3	+138.6	+100.4	−23.3	+.3
Argentina	2.2	2.7	3.0	3.0	1.9	2.4	1.9	2.0	+204.4	+168.1	−3.5	+9.9
Netherlands	4.8	3.1	2.9	2.8	2.1	2.0	2.2	2.3	+29.9	+191.7	−4.0	+10.1
Mexico	2.5	3.3	2.9	2.8	4.2	4.3	4.2	3.8	+154.3	+140.3	−6.7	−5.3
Denmark, Norway, Sweden	1.5	2.5	2.5	2.4	1.2	1.7	1.6	1.7	+249.9	+269.0	−6.5	+8.6
China	1.0	2.4	1.9	2.3	2.1	4.1	4.0	3.2	+410.7	+305.2	+16.7	−15.3
Belgium	2.5	2.5	2.4	2.1	2.4	1.7	1.6	1.8	+86.9	+92.8	−17.4	+12.7
Brazil	1.5	1.4	1.8	2.0	6.6	4.4	5.2	5.3	+203.3	+112.2	+9.1	+6.2
Central America	1.7	1.3	1.5	1.6	1.0	1.1	1.0	1.1	+101.1	+181.5	+3.8	+14.7
Spain	1.2	1.6	1.6	1.4	1.3	.9	.8	.9	+160.4	+91.3	−13.9	+26.0
Phillippine Islands	1.0	1.2	1.2	1.4	1.2	2.3	2.6	2.3	+203.8	+434.2	+12.4	−7.2
British India and Ceylon	.5	.9	.8	1.1	3.9	3.9	4.6	4.7	+367.1	+211.7	+30.0	+7.3
British South Africa	.6	.7	.9	1.1	.1	.3	.2	.4	+295.7	+705.0	+10.7	+115.2
Colombia	.3	.6	.8	1.0	.7	1.4	1.5	2.0	+755.0	+655.4	+19.1	+42.4
Chile	.6	.7	.8	1.0	1.4	2.2	2.1	1.8	+253.6	+255.9	+24.9	−8.7
Russia in Europe	1.1	.7	1.4	1.0	1.1	.1	.3	.3	+106.8	−29.4	−28.9	+4.6
New Zealand	.4	.6	.8	.9	.2	.4	.5	.4	+433.6	+401.0	+8.4	−4.6
Venezuela	.2	.3	.5	.8	.5	.4	.5	.5	+784.8	+155.6	+57.8	+19.2
Peru	.3	.5	.5	.6	.6	.6	.4	.5	+386.8	+22.9	+27.4	+26.9
Dutch East Indies	.1	.4	.4	.6	.5	1.6	2.3	2.7	+791.2	+1,201.0	+43.8	+24.8
British Malaya	.1	.2	.2	.3	1.5	4.4	7.4	8.7	+371.6	+1,458.6	+20.9	+22.2

Changes in Import Trade by Principal Countries.

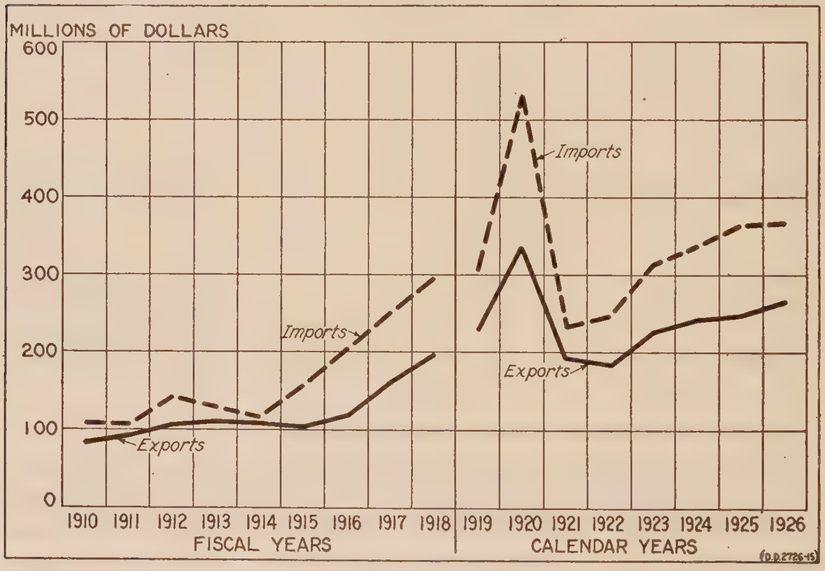
Increases occurred during 1926 in the import trade from 19 of the 28 principal countries, whereas only 9 showed decreases. Imports from British South Africa more than doubled as a result of increased purchases of wool and uncut diamonds and the fact that a large quantity of copper produced by mines in the Belgian Congo was for the first time shipped through South African ports. Imports from Colombia increased by 42 per cent owing to a great expansion in the coffee and petroleum trade. Increases of about one-quarter were shown in the value of imports from Peru and Spain, while imports from the Dutch East Indies, British Malaya, and Germany increased by more than one-fifth.

The countries from which the United States imported considerably less merchandise in 1926 than in 1925 were Australia, China, Chile, the United Kingdom, and the Philippine Islands. The decline of 17 per cent in value of imports from Australia as already stated is a direct result of a decrease in purchases of wool. The reason for a reduction in import trade with China was the continuation of disturbed political conditions in that country, while the United Kingdom's trade was considerably affected by the curtailment of its industrial production which resulted from the coal strike.

TRADE OF CONTINENTAL UNITED STATES

The foreign trade of practically all nations except the United States is obtained by totaling trade with foreign countries and trade with their own outlying possessions. In obtaining foreign trade totals for the United States, trade with the Philippine and Virgin Islands is considered foreign, while trade with all other outlying possessions is considered domestic and is excluded.

Chart XV.—TRADE OF CONTINENTAL UNITED STATES WITH OUTLYING POSSESSIONS



Prior to 1901 Alaska was our only territory which was noncontiguous to the United States and its commerce was very small. Therefore, our foreign-trade statistics for 1900 and earlier years very nearly represent the trade of the continental United States with foreign nations. At about the beginning of the present century Hawaii, the Philippines, Porto Rico, Samoa, and Guam became American territory. Hawaii and Porto Rico were actually added to our customs area; their trade with the continental United States thereafter was considered domestic and their trade with other nations was included in our foreign-trade statistics.

Table 32 shows foreign-trade statistics for the continental United States, classified on the basis used by other countries. Trade of the continental United States with all outlying possessions—Philippines, Alaska, Hawaii, Porto Rico, the Virgin Islands, Guam, and American Samoa—is added to its trade of foreign countries to secure the revised totals. On the other hand, the trade of these outlying possessions with foreign countries is not included in the totals obtained whereas trade of Alaska, Hawaii, and Porto Rico with foreign countries has been included in our other totals of foreign trade. The revision of our foreign-trade statistics in this way for the year 1926 increases our exports about 3.8 per cent to a total of $4,991,886,000 and imports by 5.4 per cent to a total of $4,669,155,000.

Table 32.—Trade of Continental United States With Foreign Countries and Outlying Possessions

Note.—Outlying possessions are Alaska, Hawaii, Porto Rico, Virgin Islands, Samoa, Guam, and the Philippines. Data are for years ended June 30, through 1918; thereafter for years ended December 31.

[Values in thousands of dollars]

Year or yearly average	Exports			Imports		
	Total	To foreign countries	To United States possessions	Total	From foreign countries	From United States possessions
1906–1910	1,829,286	1,761,625	67,661	1,410,329	1,324,594	85,734
1911–1915	2,441,254	2.337,591	103,664	1,811,234	1,681,207	130,027
1915–1920 [1]	6,656,126	6,452,539	203,587	3,596,084	3,274,496	321,588
1921–1925	4,552,455	4,335,341	217,114	3,650,280	3,351,378	298,902
1903	1,447,258	1,410,420	36,838	1,067,420	1,008,531	58,889
1904	1,487,934	1,449,840	38,094	1,031,794	972,663	59,131
1905	1,551,657	1,508,137	43,520	1,173,079	1,097,829	75,250
1906	1,784,527	1,732,860	51,667	1,275,189	1,207.507	67,682
1907	1,932,794	1,865,544	67,250	1,488,894	1,414,055	74,839
1908	1,907,874	1,842,104	65,770	1,264,301	1,175,572	88,729
1909	1,717,172	1,646,784	70,388	1,384,318	1,294,882	89,436
1910	1,804,063	1,720,831	83,232	1,638,942	1,530,956	107,986
1911	2,115,186	2,022,874	92,312	1,607,343	1,499,918	107,425
1912	2,278,732	2,172,434	106,298	1,762,351	1,619,428	142,923
1913	2,539,837	2,429,962	109,875	1,909,427	1,780,538	128,889
1914	2,434,851	2,327,087	107,764	1,980,228	1,865,197	115,031
1915	2,837,666	2,735,597	102,069	1,796,822	1,640,953	155,869
1916	4,420,846	4,302,873	117,973	2,362,645	2,159,598	203,047
1917	6,412,069	6,250,649	161,420	2,856,008	2,603,871	252,137
1918	6,054,232	5,857,167	197,065	3,150,128	2,854,047	296,081
1918 (6 months)	3,222,793	3,138,793	84,000	1,614.762	1,430,878	183,884
1919	8,059,279	7,833,823	225,456	4,125,976	3,821,142	304,834
1920	8,439,474	8,105,660	333,814	5,668,942	5,140,192	528,750
1921	4,620,537	4,427,556	192.981	2,672,013	2,438,856	233,157
1922	3,963,077	3,780,020	183,057	3,282,296	3,035,381	246,915
1923	4,333,730	4,109,344	224,386	4,010,641	3,697,607	313,034
1924	4,761,644	4,521,219	240,425	3,832,148	3,494,159	337,989
1925	5,083,285	4,838,565	244,720	4,454,302	4,090,887	363,415
1926 [2]	4,991,886	4,728,012	262,874	4,669,155	4,302,820	366,335

[1] Period July 1, 1915, to Dec. 31, 1920.

[2] Subject to revision.

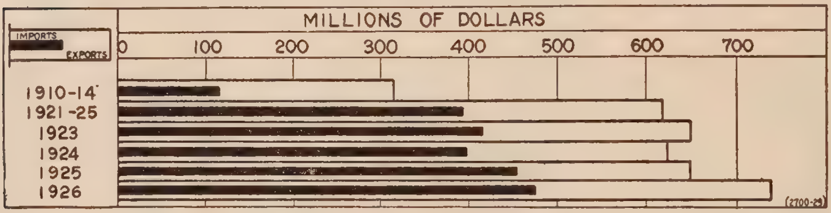
It is worthy of note that exports to our noncontiguous territories increased by over $19,000,000, or 7.8 per cent, during 1926, whereas our exports to foreign countries declined by 2.3 per cent. Imports from our outlying possessions, on the other hand, showed a much less important gain than our imports from foreign countries. This was owing to the fact that sugar is much the most important product which we import from our possessions, and the price of sugar fell to an exceptionally low average level during the past year.

Exports from continental United States to outlying possessions have increased in each year since 1922 and show a much greater growth relatively than exports to foreign countries. The import trade with our noncontiguous territories has also expanded steadily and in 1926 amounted to almost 8 per cent of the total trade of the continental United States. Imports of the United States from its possessions have exceeded exports in every year for which data have been collected.

TRADE WITH CANADA AND OTHER NORTHERN NORTH AMERICA

Exports to northern North America increased substantially during 1926, and amounted to 15.5 per cent of our total export trade, while imports, which showed a more moderate increase, constituted 11 per cent of our total import trade. Trade with Alaska is not included in these figures but is treated as domestic in character. Imports from Newfoundland and Labrador tripled in value in comparison with 1925 and earlier years chiefly as a result of larger purchases of newsprint.

Chart XVI.—TRADE OF THE UNITED STATES WITH CANADA



Over 98 per cent of our trade with northern North America is confined to Canada, which is the most important source of our imports and the second largest market for our exports. (See Table 30.) Exports to Canada increased 13.8 per cent in value during 1926 and totaled $738,475,000. This great expansion of export trade resulted from larger shipments of automobiles, anthracite coal, crude petroleum, iron and steel products, and wheat. The value of cotton exports showed a decrease of over $5,000,000, but this was caused entirely by the sharp decline in the price of raw cotton. Exports of refined copper also declined in value for the third consecutive year.

Table 33.—Principal Commodities in Trade of the United States with Canada

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	**315, 044**	**624, 031**	**648, 768**	**738, 475**
Rye, grain.........bushels	32	23, 661	9, 394	8, 175	23	25, 958	10, 945	8, 301
Wheat, grain.........do	1, 776	50, 414	18, 853	26, 327	1, 742	72, 843	29, 613	37, 566
Oranges.........boxes	1, 135	2, 267	1, 830	2, 273	2, 841	7, 550	9, 027	9, 519
Cotton, unmanufactured.....bales	150	167	228	263	9, 632	22, 543	26, 640	21, 439
Cotton cloth.........square yards [1]	17, 404	33, 389	38, 061	46, 165	1, 615	6, 106	6, 872	7, 422
Coal, anthracite.........tons	3, 470	3, 507	2, 765	3, 519	17, 885	39, 237	31, 016	40, 274
Coal, bituminous.........do	10, 002	11, 299	11, 983	12, 173	23, 961	51, 409	51, 595	52, 203
Crude petroleum.........gallons	69, 170	461, 670	374, 461	545, 278	1, 979	16, 484	16, 429	24, 281
Gasoline and naphtha.........do	33, 316	85, 887	105, 841	110, 406	3, 511	9, 369	12, 353	13, 257
Gas and fuel oil.........do	[2] 58, 044	131, 969	190, 107	173, 838	[2] 1, 774	4, 780	6, 847	5, 296
Iron and steel plates.........pounds	--------	151, 506	187, 830	265, 200	--------	4, 286	4, 706	6, 443
Skelp iron or steel.........do	--------	189, 990	186, 243	210, 253	--------	4, 065	3, 630	4, 182
Iron and steel sheets, galvanized.........pounds	[2] 83, 011	38, 759	55, 838	72, 770	[2] 2, 429	1, 838	2, 596	3, 143
Steel sheets, black.........do	--------	83, 206	97, 691	146, 073	--------	3, 282	3, 630	5, 144
Tin plate, terneplate, etc.........do	68, 844	50, 438	73, 371	105, 176	2, 400	2, 810	3, 926	5, 902
Copper (ingots, bars, rods).....do	9, 574	41, 243	31, 732	26, 806	1, 479	5, 616	4, 613	4, 017
Automobiles, passenger..number [3]	[2] 6, 723	8, 966	13, 928	25, 397	[2] 8, 229	8, 449	12, 667	20, 259
Automobile parts.........pounds	--------	70, 508	128, 108	--------	2, 382	15, 772	26, 324	29, 170
Automobile engines.......number [3]	[2] 8, 906	19, 974	61, 224	72, 145	[2] 754	3, 151	7, 399	8, 786
Imports	--------	--------	--------	--------	**117, 213**	**399, 148**	**454, 235**	**475, 886**
Dairy products.........	--------	--------	--------	--------	1, 284	9, 098	11, 354	12, 453
Furs, undressed.........number	--------	3, 925	4, 645	--------	2, 044	11, 574	11, 914	11, 927
Wheat, grain.........bushels	1, 197	15, 529	13, 901	14, 141	1, 001	15, 584	19, 341	19, 687
Flaxseed.........do	4, 110	2, 750	5, 917	2, 906	6, 435	6, 030	14, 382	6, 053
Pulpwood.........cords	976	1, 266	1, 472	1, 379	6, 399	12, 932	14, 992	14, 104
Boards, planks, deals, etc..M feet [4]	937	1, 686	1, 795	1, 837	16, 912	50, 912	54, 296	52, 773
Laths.........thousands [4]	661	1, 635	1, 949	1, 825	1, 720	9, 875	10, 492	9, 710
Shingles.........do.[4]	675	2, 568	2, 513	2, 489	1, 588	9, 328	9, 992	8, 895
Wood pulp, mechanically ground.........tons	170	183	264	249	3, 049	6, 193	7, 820	7, 474
Chemical wood pulp.........do	49	454	519	520	1, 994	29, 577	33, 388	35, 162
Standard newsprint.....M pounds [4]	229	2, 394	2, 591	3, 314	4, 393	91, 283	94, 254	111, 924
Asbestos, unmanufactured.....tons	64	161	202	225	1, 427	5, 157	6, 355	7, 318
Copper, unrefined pigs and bars.........pounds	51, 317	79, 903	50, 501	44, 961	6, 200	10, 171	6, 906	6, 139
Nickel (ore, pigs, ingots).......do	35, 271	32, 736	37, 909	34, 392	4, 641	5, 214	6, 349	6, 072

[1] Stated in linear yards for years 1910–1914.
[2] 1913 only.
[3] Full number (000 not omitted).
[4] Expressed in millions (000,000 omitted).

Imports from Canada aggregated $475,886,000 in 1926 which was 4.8 per cent more than in the preceding year. Over four-fifths of this increase resulted from larger purchases of standard newsprint which for many years has been our principal import from Canada. Imports of wood pulp and asbestos were also larger than in 1925. Both the quantity and value of our imports of flaxseed declined more than one-half as compared with 1925, but were about the same size as in the immediately preceding years.

TRADE WITH LATIN AMERICA

Latin America continued in 1926 to be second only to Europe among the great trade regions as a market for our exports and maintained third place as a supplier of our imports. Exports declined by about 1 per cent as compared with 1925 in consequence of the reduced purchasing power of Cuba and the disturbed conditions in Mexico, but our imports from Latin America expanded by 5.1 per cent. In addition to this trade, shipments from the United States to Porto Rico totaled $85,100,000 in 1926 and shipments from Porto Rico to the United States amounted to $90,200,000.

Table 34.—Trade with Latin America, by Commercial Regions and Countries

[Values in millions and tenths of millions of dollars, i. e., 00,000 omitted]

Region and country	Exports					Imports				
	1910–1914	1921–1925	1924	1925	1926	1910–1914	1921–1925	1924	1925	1926
Latin America, total [1]	**302.2**	**741.7**	**770.4**	**882.3**	**872.8**	**435.5**	**935.6**	**1,059.2**	**1,040.5**	**1,094.0**
Southern North America	**181.2**	**444.6**	**456.2**	**479.7**	**429.3**	**228.6**	**514.2**	**593.1**	**521.7**	**526.1**
Mexico	53.1	146.3	135.1	144.7	135.0	70.5	147.5	167.1	178.8	169.3
Central America	**37.6**	**58.7**	**64.8**	**72.8**	**75.5**	**17.4**	**36.4**	**37.3**	**42.6**	**48.9**
British Honduras	1.5	1.9	1.8	2.2	2.4	1.4	2.4	2.2	2.8	2.8
Costa Rica	3.4	5.1	6.0	6.8	6.3	3.8	5.1	4.7	4.8	7.1
Guatemala	2.8	7.2	8.8	9.4	11.1	2.8	10.0	10.1	11.3	14.5
Honduras	2.8	10.3	9.1	9.6	7.5	2.8	6.0	6.0	8.7	8.7
Nicaragua	2.4	5.3	6.3	7.4	6.3	1.4	5.0	5.5	6.2	6.0
Panama	22.5	22.8	26.4	28.2	32.4	3.8	4.6	5.0	6.4	5.5
Salvador	2.1	6.1	6.5	9.2	9.6	1.3	3.3	3.9	2.3	4.2
West Indies and Bermuda	**90.5**	**239.5**	**256.3**	**262.2**	**218.8**	**140.8**	**330.4**	**388.8**	**300.3**	**307.8**
Bermuda	1.4	3.6	3.5	3.2	3.3	.6	1.1	1.2	.9	1.1
Jamaica	[2] 5.0	8.5	7.3	8.9	8.4	[2] 6.1	6.9	6.2	8.2	9.1
Trinidad and Tobago	[2] 3.3	5.2	3.8	4.2	4.9	[2] 5.5	5.2	4.9	6.0	8.2
Other British	[2] 4.4	7.0	6.8	7.0	7.6	[2] 1.7	2.7	3.1	3.5	3.9
Cuba	63.0	181.3	199.8	198.7	160.5	122.1	299.6	361.7	261.7	250.6
Dominican Republic	4.4	15.3	15.6	17.8	14.6	3.6	8.1	5.8	7.3	8.1
Dutch West Indies	.9	3.1	3.7	4.2	4.9	.5	4.3	4.1	9.3	24.4
French West Indies	1.6	2.6	2.5	2.7	2.0	.1	.2	.2	.4	.2
Haiti	5.9	10.9	11.6	13.7	10.9	.8	1.7	1.2	2.1	1.4
Virgin Islands of United States	.9	1.9	1.7	1.9	1.8	.2	.7	.4	1.0	.8
South America	**121.0**	**297.1**	**314.3**	**402.6**	**443.5**	**206.9**	**421.3**	**466.1**	**518.8**	**568.0**
Caribbean	**13.1**	**44.0**	**48.0**	**70.0**	**92.3**	**22.5**	**65.8**	**75.9**	**84.8**	**115.2**
Colombia	5.8	25.9	27.8	41.4	49.3	11.9	49.4	57.7	63.4	90.2
Guiana:										
British	1.8	2.1	1.6	2.0	1.6	.5	.7	.9	1.0	1.2
Dutch	.7	1.0	.8	1.2	1.6	.9	.7	.6	.7	.4
French	.3	.5	.2	.3	.2	(3)	.2	.2	.1	.1
Venezuela	4.5	14.6	17.6	25.2	39.7	9.1	14.9	16.5	19.6	23.3
East Coast	**84.7**	**193.5**	**201.4**	**258.4**	**263.0**	**148.3**	**251.4**	**262.2**	**318.9**	**342.5**
Argentina	47.2	117.0	117.1	148.8	143.6	32.9	83.3	75.3	80.2	88.1
Brazil	31.5	59.9	65.2	87.5	95.4	110.9	152.2	179.3	221.6	235.3
Paraguay	.1	.6	.8	.9	.9	(3)	.7	.1	.4	.5
Uruguay	5.9	16.0	18.2	21.3	23.0	4.5	14.8	7.1	16.1	18.5
West Coast	**23.2**	**59.7**	**64.9**	**74.2**	**88.2**	**36.0**	**104.1**	**128.0**	**115.2**	**110.3**
Bolivia	.9	3.6	4.1	5.1	5.2	(3)	1.1	.1	.1	.3
Chile	13.9	30.1	31.4	39.3	49.0	22.9	77.2	98.3	89.2	81.4
Ecuador	2.4	4.9	5.5	6.8	4.7	3.4	6.9	6.7	8.7	6.8
Peru	6.0	20.9	23.8	23.0	29.4	9.8	19.0	22.9	17.2	21.8
Porto Rico	33.2	70.2	78.4	77.5	85.1	36.9	76.5	77.3	92.7	90.2

[1] Does not include shipments to or from Porto Rico; these are shown separately at bottom of table.
[2] Four-year average, 1911–1914.
[3] Less than $50,000.

Imports from Latin America exceeded exports by about $221,000,000, or 25 per cent, in 1926, which was considerably more of a balance than in 1925 but was somewhat smaller than in most other recent years. This balance of imports in our trade with Latin America results from the fact that the United States has a very high standard of living and is the world's largest consumer of tropical foodstuffs.

Exports to each of the trade regions of Latin America, except southern North America, were larger than in 1925, while imports from all of these regions except the west coast of South America increased. There was an exceptionally large expansion in both the export and import trade with Caribbean South America in consequence of the recent development of oil fields in Venezuela and Colombia, and a considerable increase in our imports of coffee from the latter country. The decrease in our exports to southern North America was largely confined to Cuba and Mexico.

Table 35.—Percentages of Distribution and Change in Trade with Latin-American Countries

Region and country	Per cent of total trade of the United States								Per cent change 1926 from—			
	Exports				Imports				1910–1914		1925	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports	Exports	Imports
Latin America, total	**14.0**	**16.9**	**18.0**	**18.2**	**25.8**	**27.1**	**24.6**	**24.7**	**+188.8**	**+151.2**	**−1.1**	**+5.1**
Southern North America	8.4	10.1	9.8	8.9	13.5	14.9	12.3	11.9	+136.9	+130.1	−10.5	+.8
Caribbean South America	.6	1.0	1.4	1.9	1.3	1.9	2.0	2.6	+605.8	+410.9	+31.8	+35.9
East coast South America	3.9	4.4	5.3	5.5	8.8	7.3	7.5	7.7	+210.5	+131.0	+1.8	+7.4
West coast South America	1.1	1.4	1.5	1.8	2.1	3.0	2.7	2.5	+279.6	+206.0	+18.9	−4.2
Mexico	2.5	3.3	2.9	2.8	4.2	4.3	4.2	3.8	+154.3	+140.3	−6.7	−5.3
Central America	1.7	1.3	1.5	1.6	1.0	1.1	1.0	1.1	+101.1	+181.5	+3.8	+14.7
Cuba	2.9	4.1	4.0	3.3	7.2	8.7	6.2	5.7	+154.6	+105.3	−19.2	−4.2
Colombia	.3	.6	.8	1.0	.7	1.4	1.5	2.0	+755.0	+655.4	+19.1	+42.4
Venezuela	.2	.3	.5	.8	.5	.4	.5	.5	+784.8	+155.6	+57.8	+19.2
Argentina	2.2	2.7	3.0	3.0	1.9	2.4	1.9	2.0	+204.4	+168.1	−3.5	+9.9
Brazil	1.5	1.4	1.8	2.0	6.6	4.4	5.2	5.3	+203.3	+112.2	+9.1	+6.2
Uruguay	.3	.4	.4	.5	.3	.4	.4	.4	+288.3	+310.8	+8.2	+14.4
Chile	.6	.7	.8	1.0	1.4	2.2	2.1	1.8	+253.6	+255.9	+24.9	−8.7
Peru	.3	.5	.5	.6	.6	.6	.4	.5	+386.8	+22.9	+27.4	+26.9

MEXICO

Exports to Mexico declined 6.7 per cent in 1926 and were valued at $135,000,000. This decline in export trade resulted largely from disturbed economic conditions in the country and was shared by most of the important commodities in the trade, automobiles showing a particularly large decrease amounting to about 22 per cent.

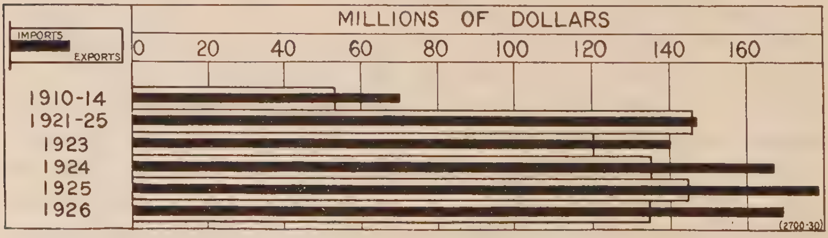
Imports from Mexico aggregated $169,400,000 in 1926, which was 5.3 per cent less than in 1925. This decrease in total imports may be entirely ascribed to a falling off of about one-third in the value of our imports of crude petroleum, which is much the most important commodity in the trade. Imports of unmanufactured cotton on the other hand were more than three times as large as in 1925, and there was also a considerable expansion in imports of copper and lead.

Table 36.—Principal Commodities in Trade of the United States with Mexico

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	**53, 091**	**135, 075**	**144, 720**	**134, 994**
Cattle .... number	7	55	73	17	292	986	1, 537	715
Eggs in shell .... dozens	673	5, 848	4, 267	3, 847	160	1, 403	1, 198	1, 025
Lard .... pounds	7, 001	39, 633	46, 529	45, 379	795	5, 660	8, 451	7, 522
Boots and shoes .... pairs	752	541	599	424	1, 570	1, 712	1, 848	1, 317
Corn, grain .... bushels	2, 501	789	2, 413	4, 212	1, 811	949	2, 903	3, 982
Wheat, grain .... do	1, 179	1, 437	1, 253	1, 781	1, 204	1, 820	2, 213	2, 887
Wheat, flour .... barrels	31	388	201	206	159	2, 247	1, 555	1, 514
Cotton cloth .... square yards [1]	2, 462	18, 001	21, 142	14, 395	294	3, 899	4, 496	2, 807
Boards, etc., southern pine .... board feet	[2] 74, 850	66, 225	59, 976	53, 272	[2] 1, 445	2, 404	2, 324	2, 285
Box shooks .... do	[2] 4, 566	27, 712	33, 578	36, 486	[2] 522	1, 137	1, 254	1, 346
Crude petroleum .... gallons	25, 879	79, 105	46, 982	1, 636	850	1, 768	1, 338	65
Gas and fuel oil .... do	[3] 1, 448	112, 657	34, 172	38, 818	[3] 40	4, 212	1, 210	974
Tubular products and fittings .... pounds	70, 069	101, 774	83, 936	60, 835	1, 927	5, 010	4, 199	3, 156
Motor trucks and busses . number [4]	[2] 35	1, 393	3, 586	2, 203	[2] 83	829	2, 041	2, 033
Automobiles, passenger .... do.[4]	[2] 235	8, 689	12, 560	9, 808	[2] 423	4, 940	8, 050	6, 252
Railway cars and parts	--------	--------	--------	--------	906	2, 908	2, 462	687
Explosives .... pounds	--------	9, 309	9, 826	9, 065	669	1, 248	1, 304	1, 341
Soap .... do	--------	17, 670	15, 650	12, 193	115	1, 411	1, 289	1, 033
Imports	--------	--------	--------	--------	**70, 479**	**167, 087**	**178, 835**	**169, 369**
Goat and kid skins .... pounds	5, 534	3, 572	4, 579	4, 666	1, 965	1, 281	1, 905	1, 806
Bananas .... bunches	1, 176	3, 047	3, 241	4, 592	302	1, 399	1, 656	2, 658
Coffee .... pounds	31, 220	27, 590	27, 532	26, 934	4, 522	5, 070	7, 049	7, 206
Vanilla beans .... do	341	157	231	222	1, 050	1, 052	1, 553	713
Tomatoes .... do	--------	44, 444	61, 176	67, 048	--------	1, 334	1, 875	2, 042
Sugar, cane .... do	1, 420	66, 397	28, 254	58, 130	52	5, 012	2, 002	2, 637
Chicle .... do	2, 532	5, 627	9, 375	9, 223	791	2, 846	4, 663	4, 687
Cotton, unmanufactured .... do	7, 762	27, 451	10, 811	35, 126	824	7, 797	2, 661	5, 934
Istle, unmanufactured .... tons	9	12	17	13	769	1, 373	1, 933	1, 926
Sisal, unmanufactured .... do	128	85	109	83	14, 314	11, 413	17, 710	14, 264
Crude petroleum .... M gallons [5]	272	3, 107	2, 312	1, 697	4, 013	66, 573	64, 646	46, 778
Oil, topped including fuel oils .... gallons	--------	513, 814	488, 354	533, 659	--------	11, 867	13, 156	14, 002
Gasoline and naphtha .... do	[3] 14	138, 103	136, 330	113, 973	[3] 2	11, 992	12, 861	10, 600
Copper ore, concentrates, matte .... pounds	19, 714	25, 723	27, 072	22, 655	2, 284	2, 915	3, 254	2, 719
Copper, unrefined pig bars .... do	115, 131	95, 687	71, 778	82, 321	14, 817	11, 504	9, 604	11, 739
Lead (ore and bullion) .... do	148, 193	224, 069	206, 951	235, 804	3, 088	11, 957	14, 338	14, 922

[1] Stated in linear yards for years 1910–1914.
[2] 1913 only.
[3] 1914 only.
[4] Full number (000 not omitted).
[5] Expressed in millions (000,000 omitted).

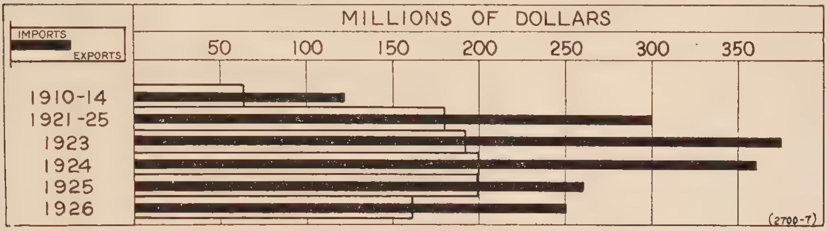
Chart XVII.—TRADE OF THE UNITED STATES WITH MEXICO



CENTRAL AMERICA

The trade of the United States with Central America continued to expand during 1926 as a result of a continued growth in our demand for tropical foodstuffs and in the demand of the Central American countries for finished manufactures. Exports to Central America were valued at $75,500,000, an increase of 3.8 per cent, while imports reached a total value of $48,900,000, which was 15 per cent more than in 1925. Most of the increase in the export trade was confined to Panama and Guatemala as shipments to Honduras and Nicaragua declined. Imports from Salvador were almost twice as large as in 1925 and there were also substantial increases in our importations from Guatemala and Honduras. Four-fifths of our imports from this region in 1926 consisted of coffee and bananas; coffee imports reached an aggregate value of $20,148,000, 45 per cent more than in 1925, while banana imports totaled $18,877,000 which was about the same as in the preceding year.

Chart XVIII.—TRADE OF THE UNITED STATES WITH CUBA



CUBA

The low price of sugar continued to affect adversely our export trade with Cuba. Exports in 1926 amounted to only $160,500,000, which was 19 per cent less than in 1925. Automobile exports fell off by one-third and there were more moderate decreases in the shipments of practically all other important commodities. Gasoline exports, however, showed a very large increase and were over three times as high in value as in 1925. The depression in the sugar industry is indicated by the fact that exports of sugar-mill machinery were less than one-third as large as in 1925.

Imports from Cuba decreased 4.2 per cent to a value of $250,600,000. The chief cause for this decline was the lower average price of sugar and molasses. Imports of sugar were substantially larger in quantity than in 1925, whereas their aggregate value was somewhat lower. Molasses imports decreased only 3 per cent in quantity, but were valued at approximately 50 per cent less than in the previous year. Pineapple imports from Cuba decreased in value more than one-third as compared with 1925 and were also less than in 1924. There were also decreases in the value of imports of copper and of cigars. Imports of cigar leaf, however, were slightly larger than in 1924, both in quantity and value.

Table 37.—Principal Commodities in Trade of the United States with Cuba

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**63, 047**	**199, 778**	**198, 655**	**160, 488**
Hams and shoulders pounds	4, 696	15, 370	14, 526	7, 281	717	2, 628	2, 957	1, 763
Bacon do	7, 697	28, 666	22, 673	20, 601	910	3, 539	4, 108	3, 256
Eggs in shell dozens	4, 817	13, 081	11, 779	11, 758	1, 037	3, 230	3, 174	3, 104
Milk, condensed, evaporated, powdered pounds	6, 234	33, 928	19, 788	18, 540	526	4, 407	2, 533	2, 299
Lard do	41, 379	93, 945	76, 973	79, 654	4, 601	12, 554	13, 223	12, 037
Boots and shoes pairs	3, 049	3, 363	3, 342	2, 713	3, 343	7, 375	7, 085	5, 112
Corn, grain bushels	2, 301	2, 456	2, 233	1, 954	1, 640	2, 581	2, 728	1, 714
Wheat, flour barrels	856	1, 187	1, 198	1, 146	4, 246	7, 541	9, 815	8, 734
Beans, dried bushels		481	346	391		1, 876	1, 485	1, 390
Potatoes, white do	974	2, 256	1, 088	986	746	2, 630	1, 755	1, 800
Coffee, green pounds	21, 182	11, 790	10, 623	9, 295	3, 184	2, 782	3, 024	2, 525
Cotton cloth square yards [1]	21, 874	80, 923	66, 424	70. 004	1, 467	13, 600	10, 041	9, 780
Cotton hosiery dozen pairs		894	687	824		1, 607	1, 246	1, 453
Cotton shirts number		1, 541	1, 322	1, 079		1, 635	1, 313	1, 094
Boards, etc., southern pine board feet	[2] 135, 628	149, 306	123, 425	91, 436	[2] 2, 476	4, 834	4, 107	3, 060
Coal, bituminous tons	1, 051	535	620	550	2, 835	2, 557	2, 828	2, 494
Crude petroleum gallons	5, 362	47, 735	38, 990	18, 237	354	3, 002	2, 745	1, 177
Gasoline do	290	3, 239	10, 781	34, 511	56	382	1, 262	3, 867
Gas and fuel oil do	[2] 1, 553	7, 364	58, 733	10, 573	[2] 43	291	2, 075	413
Lubricating oil do	1, 465	3, 907	5, 205	3, 387	456	1, 446	1, 705	1, 245
Iron and steel sheets, galvanized pounds	[2] 12, 406	25, 408	26, 148	26, 897	[2] 362	1, 224	1, 209	1, 245
Structural shapes tons	13	17	17	12	620	1, 018	1, 009	611
Rails do	34	48	40	20	992	1, 693	1, 651	795
Tubular products and fittings pounds	44, 860	55, 101	54, 344	42, 950	970	2, 814	2, 724	1, 998
Sugar-mill machinery					[2] 1, 383	4, 271	5, 448	1, 584
Locomotives number [3]	[2] 44	33	52	12	[2] 382	591	1, 101	216
Motortrucks do.[3]	[2] 14	1, 478	2, 087	1, 909	[2] 24	563	1, 271	1, 394
Automobiles, passenger do.[3]	[2] 223	7, 914	8, 035	4, 754	[2] 243	4, 196	4, 790	3, 111
Railway cars and parts					1, 408	2, 795	3, 010	2, 749
Imports					**122, 077**	**361, 721**	**261, 673**	**250, 570**
Pineapples					1, 156	2, 727	3, 234	2, 059
Sugar, cane M pounds [4]	3, 866	7, 385	7, 846	8, 560	91, 686	313, 165	199, 780	198, 895
Molasses gallons	30, 956	154, 572	238, 932	232, 808	1, 038	7, 416	16, 927	8, 599
Tobacco, cigar leaf pounds	25, 147	19, 040	21, 133	22, 562	15, 006	23, 134	22, 207	22, 528
Cigars and cheroots do	[2] 659	406	512	418	[2] 3, 996	3, 369	4, 313	3, 279
Iron ore tons	1, 324	285	546	539	3, 864	1, 141	2, 075	2, 005
Copper ore, concentrates, matte pounds	10, 351	23, 400	31, 162	19, 904	901	2, 611	3, 817	2, 484

[1] Stated in linear yards for years 1910–1914.
[2] 1913 only.
[3] Full number (000 not omitted).
[4] Expressed in millions of pounds (000,000 omitted).

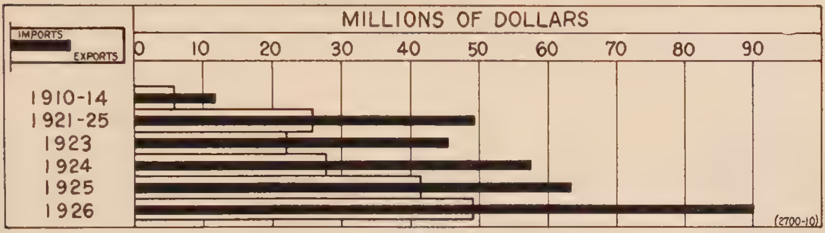
WEST INDIES OTHER THAN CUBA

Exports to the West Indies other than Cuba amounted to $58,300,000 in 1926, which was 8.2 per cent less than in 1925. This decrease was largely accounted for by smaller shipments to the Dominican Republic and Haiti. Imports on the other hand were almost one-half again as large as in 1925, reaching a total value of $57,200,000. Most of this increase was confined to our trade with the Dutch West Indies which expanded over two and one-half times. Imports of crude petroleum from the Dutch West Indies increased from $4,740,000 in 1925 to $9,690,000 in 1926 and there was also a substantial growth in our imports of refined oils.

COLOMBIA

Trade with Colombia showed a further large expansion during the past year. Exports, which consisted largely of manufactured goods, were valued at $49,300,000, 19 per cent more than in 1925. Imports showed an even larger growth, totaling $90,200,000. Coffee continued to be the principal commodity in the trade and coffee imports were about one-third larger than in 1925, reaching a total value of $74,300,000. Imports of crude petroleum which were practically negligible in earlier years rose to a value of $7,264,000 in 1926.

Chart XIX.—TRADE OF THE UNITED STATES WITH COLOMBIA



VENEZUELA

Exports of the United States to Venezuela increased 58 per cent in 1926 and reached a total value of $39,700,000. This great expansion of export trade was the result of the extensive development of oil fields in the Maracaibo region. The investment of new American capital in these fields largely took the form of exports of many types of machinery, tubular products, and various other kinds of equipment.

Imports from Venezuela totaled $23,300,000, an increase of about 19 per cent, as compared with 1925. Imports of crude petroleum were more than four times as great in value as in the previous year, reaching a total of $6,870,000. Imports of cocoa on the other hand were one-third less than in 1925, and there was also a moderate decline in the value of coffee imports.

BRAZIL

The value of our import trade from Brazil continued in 1926 to be about two and one-half times as great as our exports to that country. Imports were valued at $235,300,000, which was 6.2 per cent more than in 1925. Most of this gain in the import trade resulted from an increase in the value of coffee imports, which in 1926 totaled about $200,000,000. The value of cocoa imports increased about one-third, while imports of crude rubber declined about one-fourth.

Chart XX.—TRADE OF THE UNITED STATES WITH BRAZIL

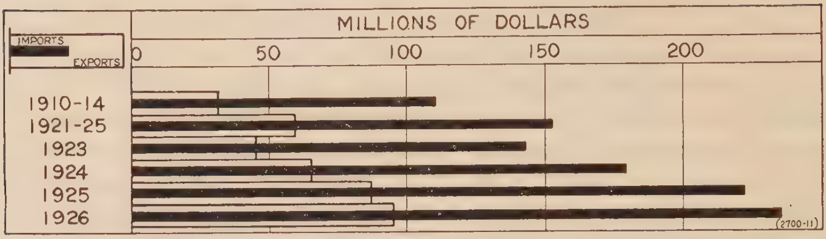


Table 38.—Principal Commodities in Trade of the United States with Brazil

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**31, 484**	**65, 207**	**87, 461**	**95, 449**
Wheat flour barrels	567	634	757	988	3, 016	3, 893	6, 193	7, 574
Coal, bituminous tons	185	759	587	1, 191	584	3, 629	2, 714	6, 522
Gasoline and naphtha gallons	4, 567	30, 443	42, 529	44, 308	765	5, 916	8, 538	8, 546
Illuminating oil do	32, 663	26, 420	27, 578	26, 169	2, 989	4, 142	3, 985	4, 419
Lubricating oil do	2, 660	7, 065	10, 003	8, 569	543	1, 984	2, 855	2, 281
Barbed wire pounds	24, 983	66, 517	31, 615	14, 242	623	2, 212	997	410
Locomotives number [1]	210	37	86	53	2, 311	440	1, 945	1, 339
Automobiles, passenger do.[1]	[2] 987	5, 389	13, 974	16, 703	[2] 1, 035	4, 099	9, 204	10, 192
Parts of automobiles pounds		32, 659	28, 259		51	5, 614	4, 444	2, 983
Automobile engines number [1]		4, 403	15, 633	5, 000		349	1, 627	390
Imports					**110, 878**	**179, 337**	**221, 572**	**235, 307**
Goat and kid skins pounds	3, 622	3, 527	3, 903	4, 115	2, 043	2, 212	2, 524	2, 539
Brazil nuts do	10, 548	53, 006	21, 314	45. 693	945	2, 759	2, 222	2, 870
Cocoa or cacao beans do	17, 128	77, 997	72, 414	91, 163	1, 775	5, 086	6, 633	8, 814
Coffee do	673, 059	940, 702	871, 889	1,013,344	73, 424	158, 007	184, 793	199, 663
Rubber, crude do	40, 291	29, 026	34, 715	29, 659	29, 991	5, 441	16, 174	11, 845
Manganese ores tons	62	55	110	131	462	1, 393	2, 756	3, 429

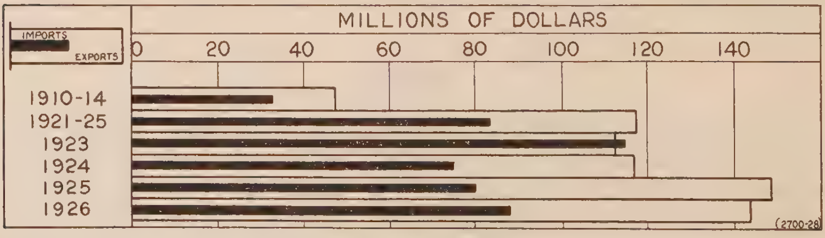
[1] Full number (000 not omitted).

[2] 1913 only.

ARGENTINA

Exports to Argentina declined 3.5 per cent in 1926 to a total value of $143,600,000. The value of exports of passenger automobiles, the most important commodity in the trade, was one-sixth less than in 1925, and exports of pine lumber to Argentina decreased by about one-third. Exports of all refined oil products, except gasoline, increased.

Chart XXI.—TRADE OF THE UNITED STATES WITH ARGENTINA



Imports were valued at $88,100,000 in 1926, which was 9.9 per cent more than in the preceding year. This gain was owing entirely to an increase of $9,800,000, or about 40 per cent, in the value of flaxseed imports. Imports of wool were larger in quantity than in 1925, but were smaller in value in consequence of the lower prices.

Table 39.—Principal Commodities in Trade of the United States with Argentina

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	**47, 169**	**117, 093**	**148, 759**	**143, 575**
Automobile tires (casings)..number..	--------	113	178	201	--------	1, 291	2, 022	2, 818
Cotton yarn, thread, cordage ....pounds..	--------	7, 939	12, 363	12, 590	85	3, 767	5, 730	5, 420
Cotton cloth..........square yards [1]..	1, 568	21, 223	22, 859	19, 294	184	3, 882	3, 938	3, 478
Hosiery, cotton and silk ....dozen pairs..	--------	672	948	295	--------	1, 850	2, 898	1, 751
Boards, etc., southern pine ....board feet..	[2] 212,357	179, 099	193, 670	140, 332	[2] 4, 187	7, 399	9, 221	6, 210
Cooperage shooks, tight..........sets..	--------	802	638	842	--------	2, 397	2, 048	2, 755
Crude petroleum..........gallons..	6, 423	52, 132	--------	9, 541	239	1, 320	--------	430
Gasoline and naphtha..........do....	12, 025	27, 037	30, 246	28, 590	1, 890	5, 158	6, 730	5, 773
Illuminating oil..........do....	20, 051	13, 831	13, 641	13, 705	2, 060	2, 170	2, 111	2, 503
Gas and fuel oil..........do....	[2] 476	36, 344	52, 369	89, 894	[2] 35	1, 129	1, 471	2, 250
Lubricating oil..........do....	4, 207	7, 079	8, 289	8, 859	817	2, 696	3, 061	3, 414
Iron and steel sheets, galvanized ....pounds..	18, 536	32, 172	79, 841	23, 200	514	1, 575	3, 943	982
Tubular products..........do....	9, 209	16, 051	33, 102	37, 635	274	948	1, 626	1, 868
Horse and power plows..........number..	--------	46	62	38	--------	2, 154	3, 318	1, 497
Threshers..........do.[3]....	--------	4, 085	1, 353	2, 506	997	3, 753	1, 018	2, 224
Wheel tractors..........do.[3]....	--------	2, 428	4, 851	2, 349	--------	1, 770	3, 617	1, 631
Automobiles, passenger..........do.[3]....	[2] 1, 062	12, 219	31, 489	25, 552	[2] 1, 182	9, 286	20, 489	16, 968
Motor trucks..........do.[3]....	[2] 35	608	1, 881	2, 475	[2] 78	982	1, 751	2, 197
Automobile engines..........do.[3]....	--------	3, 898	17, 244	9, 024	--------	376	1, 483	689
Parts of automobiles..........pounds..	--------	44, 902	30, 687	--------	56	7, 574	5, 472	6, 123
Imports	--------	--------	--------	--------	**32, 878**	**75, 298**	**80, 170**	**88, 137**
Cattle hides..........pounds..	71, 324	106, 791	88, 673	78, 471	12, 782	14, 592	15, 195	12, 237
Sheep and lamb skins..........do....	5, 271	11, 551	10, 148	10, 011	610	2, 729	3, 625	2, 812
Furs, undressed..........number..	--------	2, 354	3, 269	--------	11	2, 448	3, 453	3, 586
Flaxseed..........bushels..	1, 938	13, 838	10, 537	19, 443	3, 578	24, 005	25, 167	34, 938
Quebracho, dyeing extract..pounds..	66, 690	87, 905	91, 527	89, 839	2, 063	2, 472	3, 205	3, 301
Carpet wool..........do....	3, 935	6, 207	6, 260	6, 480	502	1, 300	1, 635	1, 349
Clothing wool..........do....	22, 407	5, 736	6, 376	2, 126	4, 662	2, 259	2, 668	618
Combing wool..........do....	933	20, 473	23, 947	31, 729	176	7, 376	10, 794	10, 552

[1] Stated in linear yards for years 1910–1914.

[2] 1913 only.

[3] Full number (000 not omitted).

URUGUAY

Exports of the United States to Uruguay totaled $23,000,000 in 1926, an increase of 8.2 per cent as compared with 1925. Exports of coal were over six times as large as in the preceding year, but this was owing primarily to the British coal strike and the temporary cessation of shipments from Europe. The value of refined sugar exports, on the other hand, declined about 40 per cent and there was little change in the value of automobile shipments.

Imports into the United States from Uruguay increased over 14 per cent to a total value of $18,500,000. There were particularly large gains in the imports of hides and skins from Uruguay; cattle hide imports were three times as large as in 1925, and imports of sheep and lamb skins were about twice as large. Total imports of raw wool increased somewhat in quantity in 1926, but were lower in value than in 1925. There was an especially large decrease in both the quantity and value of clothing wool imported.

PARAGUAY

United States statistics greatly underestimate our foreign trade with Paraguay, as a large part of our trade with that country is indirect, passing through either Argentina or Uruguay. In 1925, according to Paraguayan statistics, the United States ranked third among the nations of the world in furnishing imports to that country and second as a destination for its exports. Our exports to Paraguay consist largely of textiles, drugs, hardware, crockery, and shoes, while quebracho and animal products are our principal imports from there.

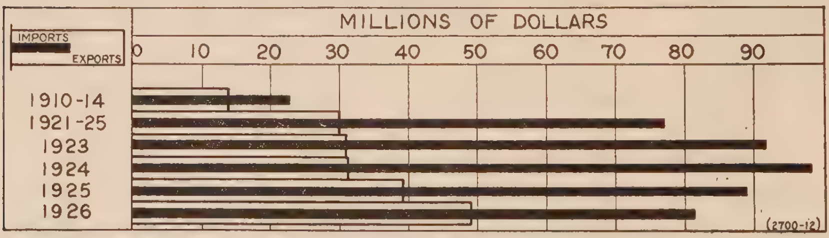
BOLIVIA

Exports from or imports into Bolivia must pass through one of four bordering countries, as Bolivia has no seaports. Consequently, United States trade statistics do not accurately portray the changes in our trade with that country, particularly in the case of imports. Our principal exports to Bolivia are foodstuffs, textiles, and mining equipment, while the imports from there are rubber, tin, and other minerals.

CHILE

In 1926 our exports to Chile increased about one-fourth, while our imports declined 8.7 per cent. Exports reached a total value of $49,000,000, as compared with $39,300,000 in 1925. Exports of insulated copper wire and cable were over three times as large as in the previous year and there was also a substantial gain in the value of shipments of construction and conveying machinery, of steel sheets and plates, and of a large number of other manufactured articles.

Chart XXII.—TRADE OF THE UNITED STATES WITH CHILE



Imports from Chile decreased in value from $89,200,000 to $81,400,000. This decrease was the direct result of a decline of about $10,000,000 in the value of sodium-nitrate imports, which constitute about one-half of the total trade. Imports of copper, on the other hand, were substantially larger than in 1925.

Table 40.—Principal Commodities in Trade of the United States with Chile

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**13, 870**	**31, 377**	**39, 274**	**49, 044**
Cotton cloth square yards [1]	10, 641	22, 685	23, 517	24, 656	731	3, 525	3, 491	3, 227
Boards, etc., Douglas fir board feet	[2] 63, 271	23, 700	32, 599	29, 518	[2] 777	565	659	584
Gas and fuel oil gallons	[2] 58, 244	202, 248	213, 535	182, 631	[2] 924	5, 671	6, 688	4, 289
Lubricating oil do	1, 733	2, 483	2, 605	2, 250	392	758	810	745
Iron and steel and manufactures of					[2] 3, 772	3, 194	4, 696	7, 818
Electrical machinery					325	1, 730	1, 750	5, 066
Mining machinery					124	903	677	2, 734
Construction and conveying machinery						520	1, 321	1, 967
Motor trucks number [3]	[4] 2	1, 272	1, 605	753	[4] 11	754	1, 378	896
Automobiles, passenger do.[3]	[2] 78	2, 095	1, 635	1, 467	[2] 110	1, 197	1, 104	1, 080
Automobile parts pounds		950	3, 623		6	274	769	891
Imports					**22, 881**	**98, 285**	**89, 194**	**81, 442**
Clothing and combing wool pounds	123	1, 033	5, 159	2, 646	23	642	2, 387	833
Iron ore tons	[4] 7	1, 145	1, 114	1, 364	[4] 8	7, 480	3, 222	1, 561
Copper ore pounds	31, 295	46, 584	44, 555	33, 074	4, 329	5, 644	5, 608	3, 935
Copper, unrefined pigs, bars do		124, 283	59, 800	31, 365		16, 294	8, 262	4, 170
Copper, refined do		141, 248	96, 171	166, 873		17, 955	13, 296	22, 884
Sodium nitrate tons	535	982	1, 100	898	17, 069	46, 923	51, 842	41, 885

[1] Stated in linear yards for years 1910–1914.
[2] 1913 only.
[3] Full figure (000 not omitted).
[4] 1914 only.

PERU

Exports to and imports from Peru into the United States, both increased by about 27 per cent in 1926. The export trade reached a value of $29,400,000, which is larger than in any other recent year. Lumber exports were about one-half larger than in 1925, and there was a considerable increase in exports of many types of manufactured articles. Shipments of passenger automobiles and trucks to Peru, however, were considerably less than in 1925.

Imports from Peru were valued at $21,800,000 in 1926, and were more than in 1925, but less than the two preceding years. The value of imports of unrefined copper increased by about $2,000,000, or about one-fourth, and imports of crude petroleum were 70 per cent larger than in 1925. Cotton imports, on the other hand, showed a decrease of about 40 per cent.

ECUADOR

Exports to Ecuador decreased 31 per cent in 1926 and amounted to only $4,700,000. The value of cotton cloth exports was about two-thirds less than in 1925, while exports of lard declined by about one-third. Imports from Ecuador, which were valued at $6,800,000, were 22 per cent less than in 1925, in consequence of a $2,000,000 decline in cocoa imports. Oil fields have recently been developed in Ecuador and we imported crude petroleum valued at $393,000 in 1926.

TRADE WITH EUROPE

Europe continued in 1926 to be the most important market for American exports and was second only to Asia among the continents as a source of our imports. Its share of both our export and import trade was, however, relatively less than in most preceding years.

Total exports to Europe decreased 11.3 per cent during the past year and this decrease was distributed throughout all of the four major trade regions although the decline was not so drastic in the case of northeastern Europe as in other parts of the continent. Imports increased 3.9 per cent, being larger for all of the trade regions except southeastern Europe.

Table 41.—Trade with Europe, by Commercial Regions and Countries

[Values in millions and tenths of millions of dollars, i. e., 00,000 omitted]

Region and country	Exports					Imports				
	1910–1914	1921–1925	1924	1925	1926	1910–1914	1921–1925	1924	1925	1926
Europe, total	**1,350.3**	**2,317.9**	**2,445.3**	**2,603.8**	**2,309.7**	**836.5**	**1,049.5**	**1,096.1**	**1,238.2**	**1,285.9**
Northwestern and Central	**1,222.9**	**1,960.6**	**2,096.3**	**2,193.6**	**1,984.0**	**723.8**	**885.0**	**924.1**	**1,035.6**	**1,070.3**
Sweden	10.0	39.4	42.3	42.5	40.9	9.5	34.1	40.0	41.0	44.0
Norway	7.8	28.1	23.2	26.2	24.9	8.1	18.5	21.4	23.3	25.1
Denmark	15.4	42.6	43.4	55.7	50.6	2.6	6.0	6.2	4.3	5.5
Iceland	(1)	.3	.1	.2	.2	(1)	.1	(1)	.1	.2
United Kingdom	567.6	939.4	982.9	1,033.9	972.6	278.9	355.8	366.5	412.7	383.2
Irish Free State	-------	-------	-------	7.3	17.0	-------	-------	-------	1.3	1.5
Belgium	53.1	111.3	116.0	120.3	99.3	40.4	58.3	65.6	69.0	77.8
France	138.8	265.2	281.7	280.3	264.0	130.1	147.9	147.6	157.4	152.0
Netherlands	104.6	138.2	151.8	141.5	135.8	34.9	70.6	74.0	92.5	101.9
Austria	[2] 20.6	2.2	3.2	2.9	2.9	[2] 18.1	4.1	5.0	5.9	9.4
Czechoslovakia	-------	1.7	2.0	2.9	3.0	-------	17.4	22.4	22.8	28.3
Hungary	-------	.3	.4	.8	1.0	-------	.6	.6	.7	.9
Germany	304.1	383.2	440.4	470.3	364.2	176.5	132.5	139.3	164.3	198.5
Switzerland	.8	7.2	8.9	8.8	8.3	24.7	38.8	35.6	40.3	42.0
Northeastern	**25.9**	**58.3**	**57.9**	**90.5**	**67.0**	**19.3**	**17.7**	**24.5**	**27.3**	**34.9**
Finland	[3] 3.0	10.4	9.4	12.8	12.9	[3] .2	7.5	8.3	7.2	9.1
Estonia	-------	2.1	1.4	1.6	.8	-------	.4	.3	.3	1.2
Latvia	-------	3.0	1.1	1.3	.7	-------	2.6	4.6	3.7	6.0
Lithuania	-------	.1	.1	(1)	.1	-------	.3	.3	.8	.9
Poland and Danzig	-------	10.9	4.6	6.6	3.9	-------	2.4	2.8	2.5	4.1
Russia in Europe	23.5	31.7	41.3	68.2	48.5	19.1	4.6	8.1	12.9	13.5
Southwestern	**96.5**	**268.1**	**268.2**	**295.6**	**240.2**	**79.6**	**115.1**	**110.0**	**140.4**	**151.0**
Azores and Madeira Islands	.2	1.0	.9	1.1	1.3	.3	2.5	3.0	1.7	1.6
Gibraltar	.5	3.4	.9	1.3	1.7	(1)	(1)	(1)	(1)	(1)
Italy	66.0	185.2	187.1	205.2	157.4	51.1	79.1	75.0	102.2	102.5
Portugal	3.6	8.0	8.1	8.7	11.6	6.6	3.9	3.0	3.7	5.6
Spain	26.2	70.5	71.2	79.2	68.2	21.6	29.6	29.0	32.8	41.4
Southeastern	**5.1**	**30.9**	**22.9**	**24.1**	**18.5**	**13.8**	**31.6**	**37.5**	**34.7**	**29.6**
Bulgaria	.2	.7	.3	.3	.4	.4	1.0	1.5	1.0	1.3
Greece	.9	17.2	16.7	16.6	10.4	3.3	22.3	27.7	26.2	16.9
Malta, Gozo, and Cyprus Islands	.4	1.4	1.3	1.2	1.3	(1)	.2	.1	.2	.2
Rumania	1.4	2.4	1.2	2.2	3.1	.2	.3	.1	.3	1.1
Turkey in Europe	2.2	8.1	2.9	2.8	2.5	8.9	7.4	7.3	5.6	9.0
Yugoslavia and Albania	(1)	1.2	.5	1.0	.9	1.0	.5	.7	1.4	1.2

(1) Less than $50,000.

[2] Figures shown are for Austria-Hungary.

[3] Four-year average, 1911-1914.

In considering the statistics for trade regions and individual countries, it should be noted that the grouping of European countries into trade regions is necessarily somewhat arbitrary as several of the countries are reached by two or even three different trade routes; that there is much indirect trade with the interior countries of the continent; and that changes of boundaries of certain countries make accurate comparisons with pre-war years impossible. In the tables of individual countries it is possible to show only the largest items. In the case of exports to these countries the commodities shown are mainly raw materials and foodstuffs, and the very considerable shipments of manufactured articles do not usually appear in the tables. Imports from many of the European countries also comprise a large variety of manufactured goods.

Table 42.—Percentages of Distribution and Change in Trade with European Countries

Region and country	Per cent of total trade of the United States								Per cent change 1926 from—			
	Exports				Imports				1910–1914		1925	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports	Exports	Imports
Europe, total	**62.3**	**52.7**	**53.0**	**48.0**	**49.5**	**30.4**	**29.3**	**29.0**	**+71.1**	**+53.7**	**−11.3**	**+3.9**
Northwestern and Central	56.5	44.6	44.7	41.3	42.9	25.7	24.5	24.2	+62.2	+47.9	−9.6	+3.3
Northeastern	1.2	1.3	1.8	1.4	1.1	.5	.6	.8	+158.8	+81.4	−26.0	+27.5
Southwestern	4.5	6.1	6.0	5.0	4.7	3.3	3.3	3.4	+149.0	+89.8	−18.7	+7.6
Southeastern	.2	.7	.5	.4	.8	.9	.8	.7	+265.0	+114.3	−23.2	−14.6
Sweden	.5	.9	.9	.8	.6	1.0	1.0	1.0	+307.3	+361.7	−3.8	+7.2
Norway	.4	.6	.5	.5	.5	.5	.6	.6	+218.2	+210.1	−5.0	+7.7
Denmark	.7	1.0	1.1	1.1	.2	.2	.1	.1	+228.6	+112.1	−9.3	+27.3
United Kingdom	26.2	21.4	21.1	20.2	16.5	10.3	9.8	8.6	+71.3	+37.4	−5.9	−7.2
Belgium	2.5	2.5	2.4	2.1	2.4	1.7	1.6	1.8	+86.9	+92.8	−17.4	+12.7
France	6.4	6.0	5.7	5.5	7.7	4.3	3.7	3.4	+90.0	+16.8	−5.9	−3.4
Netherlands	4.8	3.1	2.9	2.8	2.1	2.0	2.2	2.3	+29.9	+191.7	−4.0	+10.1
Czechoslovakia	-----	(1)	.1	.1	-----	.5	.5	.6	--------	--------	+4.0	+24.0
Germany	14.0	8.7	9.6	7.6	10.4	3.8	3.9	4.5	+19.7	+12.5	−22.6	+20.8
Poland, including Danzig	-----	.2	.1	.1	-----	.1	.1	.1	--------	--------	−39.9	+64.1
Russia in Europe	1.1	.7	1.4	1.0	1.1	.1	.3	.3	+106.8	−29.4	−28.9	+4.6
Italy	3.0	4.2	4.2	3.3	3.0	2.3	2.4	2.3	+138.6	+100.4	−23.3	+.3
Spain	1.2	1.6	1.6	1.4	1.3	.9	.8	.9	+160.4	+91.3	−13.9	+26.0
Greece	(1)	.4	.3	.2	.2	.6	.6	.4	+1,085.9	+407.9	−37.8	−35.4
Turkey in Europe	.1	.2	.1	.1	.5	.2	.1	.2	+12.8	+1.4	−9.4	+60.3

[1] Less than one-tenth of 1 per cent.

NORTHWESTERN AND CENTRAL EUROPE

Over two-fifths of the total exports of the United States are sent to the large industrial nations of northwestern and central Europe, though their share of our trade was smaller in 1926 than in 1925 and much less than in the years before the war. The total value of United States exports to this group of countries was $1,984,000,000 in 1926, which was 9.6 per cent less than in the preceding year. Exports to most of the individual countries in this group were smaller than in 1925 on account of the sharp decrease in the price of cotton (the most important commodity in the trade) and in the quantity of exports of pork products and refined sugar. Exports of automobiles to several of these countries declined in 1926, but the total trade in most other manufactured articles was larger.

Imports from northwestern and central Europe were valued at $1,070,000,000 in 1926, which was 3.3 per cent more than in 1925. Imports from all countries in this region except the United Kingdom and France increased, gains being shown for a large number of manufactured articles.

SCANDINAVIAN COUNTRIES

Exports to the three Scandinavian countries reached an aggregate value of $116,400,000 in 1926, as compared with $124,400,000 in 1925. The exports to each of these countries was somewhat smaller, the decline being most pronounced in the case of Denmark. Exports of cotton, cottonseed cake, and copper to these countries were much smaller than in 1925. Wheat flour, tobacco, and petroleum products, on the other hand, were marketed in much larger quantities; exports of gasoline to Norway doubled and exports of illuminating oil to both Norway and Sweden showed large increases. Exports of passenger automobiles to Denmark also showed a considerable growth.

Chart XXIII.—TRADE OF THE UNITED STATES WITH SWEDEN

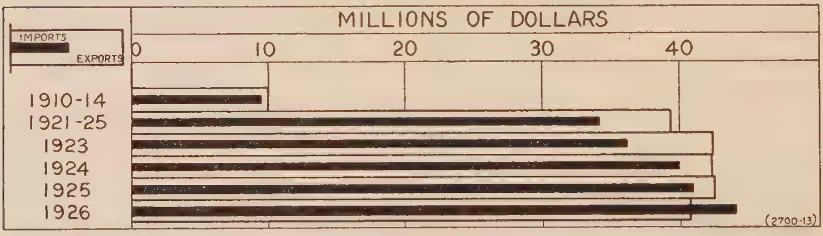
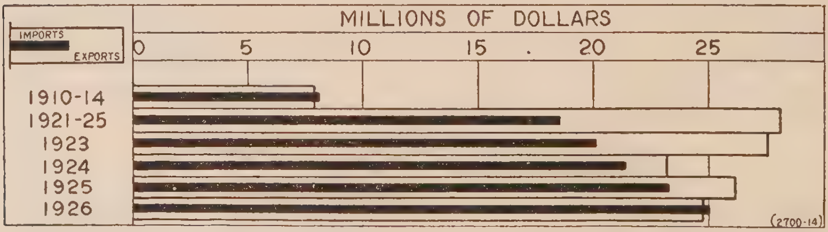


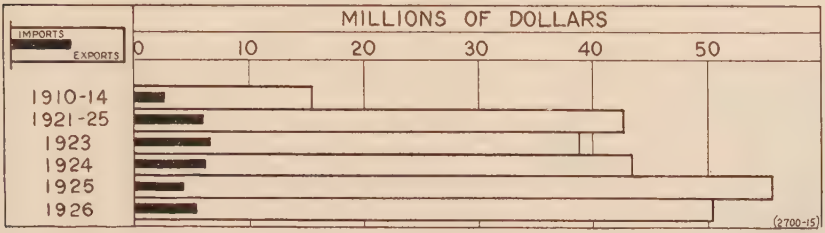
Chart XXIV.—TRADE OF THE UNITED STATES WITH NORWAY



The Scandinavian countries increased their imports from the United States by 8.7 per cent in 1926, to a total value of $74,600,000. About three-fifths of this merchandise is imported from Sweden.

Chemical wood pulp continued to be the principal import and was purchased in larger quantities in both Sweden and Norway. Imports of newsprint, however, declined.

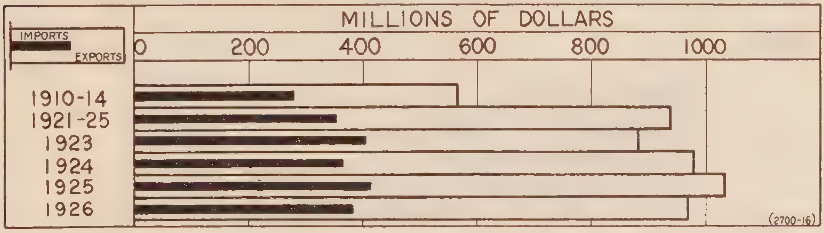
Chart XXV.—TRADE OF THE UNITED STATES WITH DENMARK



UNITED KINGDOM

Both the export and import trade with the United Kingdom declined in 1926 as a result of the prolonged British coal strike. Many factories were compelled to restrict their operations on account of the coal shortage and consequently purchased smaller quantities of imported raw materials. Exports to the United Kingdom, which were valued at $972,600,000, were 5.9 per cent less than in 1925. The total value of cotton exports to the United Kingdom declined from $304,000,000 to $208,000,000, and shipments of pork products and tobacco were also substantially smaller. Exports of passenger automobiles were only about one-third as large as in 1925, and the value of refined sugar exports declined from $13,647,000 to $968,000. The only important American commodities which were marketed in the United Kingdom in substantially larger quantities during 1926 were wheat and gasoline.

Chart XXVI.—TRADE OF THE UNITED STATES WITH UNITED KINGDOM



Imports from the United Kingdom were valued at $383,000,000 in 1926, a decrease of 7.2 per cent as compared with the previous year. Most of the important domestic products such as textiles and steel were imported in smaller quantities than in 1925 and there was also a decline in the entrepôt trade in such articles as rubber, wool, and tea. Imports of furs were somewhat larger than in 1925.

Table 43.—Principal Commodities in Trade of the United States with United Kingdom

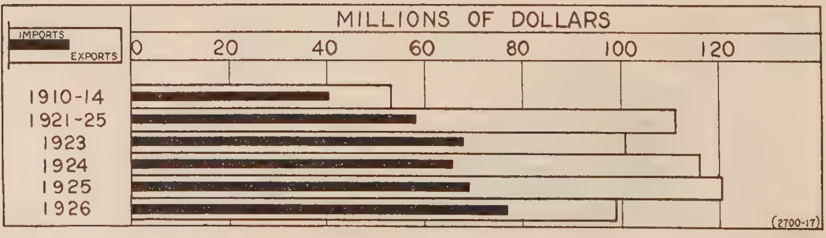
Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	**567, 592**	**982, 942**	**1,033,856**	**972, 385**
Bacon……pounds	133, 760	102, 923	94, 677	80, 947	17, 202	14, 677	19, 634	17, 524
Hams and shoulders……do	143, 087	245, 760	212, 891	161, 097	18, 431	38, 400	44, 509	38, 190
Lard……do	169, 176	237, 754	214, 772	224, 928	18, 403	30, 940	36, 258	34, 766
Furs, undressed……number	--------	7, 986	5, 601	4, 085	7, 077	11, 011	9, 874	7, 682
Barley, grain……bushels	5, 054	11, 193	10, 753	8, 529	3, 300	12, 549	10, 218	6, 636
Wheat, grain……do	21, 806	37, 796	17, 100	37, 897	20, 463	53, 926	29, 405	55, 215
Wheat flour……barrels	2, 713	1, 940	1, 210	1, 439	13, 753	11, 128	8, 742	9, 497
Apples, fresh……boxes [1]	3, 063	8, 861	6, 626	10, 586	3, 650	16, 954	13, 208	19, 672
Canned fruits……pounds	--------	176, 723	207, 459	166, 540	2, 716	17, 233	20, 657	16, 547
Sugar, refined……do	36, 977	125, 945	374, 385	26, 798	1, 626	6, 850	13, 647	968
Tobacco, leaf……do	139, 837	159, 697	171, 115	149, 720	15, 759	84, 590	84, 405	67, 333
Cotton, unmanufactured……bales	3, 395	1, 986	2, 457	2, 308	221, 708	272, 236	304, 418	208, 358
Boards, planks, etc……board feet	259, 153	278, 116	296, 280	257, 260	9, 505	18, 801	19, 593	17, 764
Gasoline and naphtha……gallons	24, 876	369, 310	345, 950	614, 432	2, 207	47, 193	45, 060	83, 323
Lubricating oil……do	58, 046	94, 488	87, 861	92, 425	6, 490	19, 339	17, 548	17, 026
Copper (ingots, bars, rods)……pounds	120, 331	237, 998	218, 007	199, 754	16, 773	32, 896	31, 741	28, 498
Automobiles, passenger……number [2]	[3] 3, 795	6, 118	17, 569	5, 826	[3] 2, 907	5, 483	16, 218	4, 821
Imports	--------	--------	--------	--------	**278, 897**	**366, 466**	**412, 705**	**383, 190**
Furs, undressed……number	--------	33, 302	24, 233	--------	3, 190	18, 279	19, 966	21, 852
Tea……pounds	11, 620	19, 420	24, 771	19, 865	3, 180	7, 384	9, 334	8, 173
Rubber, crude……do	28, 737	85, 237	84, 730	57, 522	27, 511	22, 315	47, 951	33, 536
Cotton cloth……square yards	40, 780	150, 651	91, 519	44, 223	6, 261	31, 052	21, 988	12, 130
Burlaps……pounds	59, 868	56, 254	55, 829	54, 319	5, 049	7, 513	9, 256	8, 513
Carpet wool……do	23, 115	40, 832	46, 573	46, 768	3, 723	11, 680	14, 914	12, 570
Combing wool……do	14, 328	22, 097	25, 090	20, 190	3, 616	10, 151	11, 237	7, 522
Wool fabrics……do	--------	9, 378	7, 961	7, 910	684	15, 705	16, 405	16, 393
Manufactures of flax, hemp, ramie	--------	--------	--------	--------	17, 400	34, 511	26, 106	23, 539
Diamonds, uncut……carats	--------	150	108	145	6, 957	8, 856	6, 377	8, 884
Tin in bars, blocks, etc……pounds	57, 700	28, 213	40, 014	46, 511	22, 678	13, 409	22, 607	29, 330
Dead or creosote oil……gallons	33, 388	59, 595	36, 550	38, 983	1, 996	8, 993	4, 693	5, 053
Works of art (100 years old)……pounds	--------	1, 864	3, 163	--------	12, 820	7, 952	12, 032	14, 918

[1] Barrels, converted to boxes, are included. [2] Full number (000 not omitted). [3] 1913 only.

BELGIUM

Our exports to Belgium totaled $99,300,000 in 1926, which was 17 per cent less than in 1925. Most of the principal commodities in the trade were exported in smaller quantities and there was a particularly large decline in shipments of pork products and barley. Exports of passenger automobiles were 47 per cent larger than in 1925.

Chart XXVII.—TRADE OF THE UNITED STATES WITH BELGIUM



Imports from Belgium were valued at $77,800,000, an increase of 13 per cent. Imports of furs were one-third larger than in 1925, and there were also substantial increases in the quantity of cylinder glass, plate glass, and cement imported. Imports of diamonds, however, were slightly smaller than in other recent years.

Table 44.—Principal Commodities in Trade of the United States with Belgium

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**53, 117**	**116, 001**	**120, 258**	**99, 289**
Hams and shoulders, cured..pounds..	7, 863	18, 681	8, 457	1, 558	920	1, 981	1, 199	234
Bacon..do....	4, 901	9, 684	5, 253	3, 796	664	1, 205	888	521
Lard..do....	17, 076	32, 556	16, 680	11, 796	1, 852	4, 340	2, 778	1, 728
Barley, grain..bushels..	283	1, 089	2, 631	546	172	1, 150	2, 519	390
Wheat, grain..do....	7, 195	11, 612	7, 490	6, 696	7, 135	16, 686	13, 389	10. 015
Linseed cake..pounds..	288, 955	142, 281	162, 986	126, 462	4, 243	3, 034	3, 672	2, 678
Tobacco, leaf..pounds..	11, 620	24, 442	14, 255	21, 602	1, 246	3, 217	2, 310	2, 255
Cotton, unmanufactured..bales..	175	168	202	230	10, 689	23, 826	25, 397	22, 039
Gasoline and naphtha..gallons...	6, 105	40, 181	48, 620	43, 113	561	5, 123	6, 989	5, 852
Lubricating oil..do....	11, 482	29, 900	34, 970	28, 432	1, 456	5, 136	5, 118	4, 353
Copper (ingots, bars)..pounds..	6, 988	77, 998	90, 951	82, 059	992	10, 699	13, 466	11. 471
Zinc ore, concentrates, dross..					8	41	3. 257	2, 729
Automobiles, passenger.. number [1]..	[2] 94	1, 576	5, 193	6, 542	[2] 86	1, 666	4, 318	6, 338
Automobile parts..pounds..		42, 377	16, 688		10	7, 569	2, 680	1, 998
Imports					**40, 360**	**65, 559**	**69, 019**	**77, 799**
Furs, undressed..number..		22, 649	21, 422		1, 186	4, 034	4, 026	5, 474
Cement, hydraulic..tons..	9	171	322	404	53	1, 582	2, 994	3, 740
Cylinder glass, unpolished..pounds..	23, 686	23, 963	29, 987	59, 342	760	1, 168	1, 239	1, 768
Plate glass, unsilvered..square feet..	2, 206	9, 440	8, 743	14, 775	499	5, 441	3, 678	4, 894
Diamonds, cut but not set...carats..		267	239	255	10, 294	24, 007	21, 337	20, 876
Structural shapes and building forms..pounds..	[2] 1, 421	61, 040	141, 886	190, 798	[2] 21	849	1. 800	2, 341
Dead or creosote oil..gallons..	2, 701	11, 065	10, 018	21, 724	127	1, 745	1, 317	3, 007

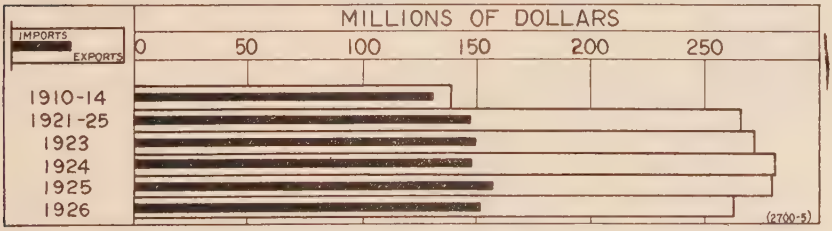
[1] Full number (000 not omitted).

[2] 1913 only.

FRANCE

Both the export and import trade with France decreased in 1926, but this may be largely ascribed to the decline in the price of cotton and the wide fluctuations in the exchange value of the franc. Exports aggregated $264,000,000, which was 5.9 per cent less than in 1925, and was also smaller than in other recent years. The value of raw cotton exports showed a 19 per cent decrease in 1926, but this was entirely owing to the price decline as there was actually an increase of about one-tenth in the quantity marketed. Exports of gasoline were valued at $41,000,000, a higher value than in any previous year and exports of both tobacco and coal were over twice

Chart XXVIII.—TRADE OF THE UNITED STATES WITH FRANCE



as large as in 1925. Exports of wheat, sugar, and prunes, on the other hand, decreased.

There was a decrease of 3.4 per cent in our imports from France in 1926. Their value aggregated $152,000,000. Pearls, walnuts, silk yarn, and cotton laces were imported in smaller amounts, while imports of silk fabrics, silk wearing apparel, and leather gloves were larger.

Table 45.—Principal Commodities in Trade of the United States with France

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910-1914	1924	1925	1926
Exports	--------	--------	--------	--------	**138, 841**	**281, 664**	**280, 299**	**263, 779**
Lard .... pounds..	12, 090	23, 619	4. 447	3, 888	1, 236	3, 145	744	584
Wheat, grain .... bushels..	3, 002	7, 090	7, 946	8, 925	2. 979	10, 492	14, 384	13, 290
Prunes .... pounds..	10, 226	18, 091	38, 409	22, 915	712	1, 220	2, 810	1, 494
Sugar .... do....	1	51, 138	29, 436	13, 603	(1)	2, 846	1, 024	426
Tobacco, leaf .... do....	42, 503	41, 803	21, 723	49, 573	4, 083	5, 716	2, 894	4, 256
Cotton, unmanufactured ...... bales..	1, 042	795	918	1, 009	68, 783	114, 329	117, 567	95, 581
Coal, bituminous .... tons..	50	421	234	486	139	2, 160	1, 097	2, 933
Gasoline and naphtha ...... gallons..	17, 223	258, 414	258, 003	309, 598	1, 770	30, 055	33, 478	41, 255
Illuminating oil .... do....	48, 267	84, 214	59, 984	84, 351	2, 758	5, 638	3, 683	6, 298
Lubricating oil .... do....	23, 046	64, 045	71, 740	66, 687	2, 901	12, 820	14, 198	12, 044
Copper (ingots, bars, rods) . pounds..	[2] 136, 511	196, 737	146, 595	177, 935	[2] 19, 233	27, 088	21, 192	25, 244
Automobile parts .... do....	--------	26, 734	26, 824	--------	109	4, 339	4, 244	2, 139
Imports	--------	--------	--------	--------	**130, 130**	**147, 636**	**157, 433**	**152, 030**
Cattle hides .... pounds..	17, 584	4, 274	3, 324	2, 277	2, 830	683	768	452
Calf and kip skins .... do....	4, 874	6, 529	3, 947	5, 472	1, 148	1, 884	1, 233	1, 505
Hare, coney, rabbit furs ... number..	--------	7, 904	13, 812	13, 295	--------	13, 425	2, 518	3, 205
Gloves, leather .... pairs..	--------	3, 955	3, 853	4, 542	3, 334	3, 736	3, 443	4, 029
Walnuts .... pounds..	21, 026	23, 240	26, 062	19, 918	2, 906	5, 032	6, 193	4, 861
Vanilla beans .... do....	157	481	510	841	432	2, 504	3, 227	1, 899
Clover seed .... do....	7, 979	18, 237	15, 309	20, 144	734	2, 357	2, 510	3, 182
Cotton sewing thread .... 100 yards..	--------	24, 847	21, 243	13, 161	--------	2, 603	3, 014	1, 909
Cotton cloth, colored, dyed .... square yards..	[2] 3, 037	5, 945	2, 303	2, 165	[2] 939	2, 123	975	832
Cotton laces, machine made . pounds..	--------	1, 494	1, 019	--------	--------	7, 251	4, 340	3, 112
Spun silk or schappe silk yarn . do....	824	620	628	340	1, 477	1, 960	2, 212	924
Silk fabrics .... do....	--------	293	390	499	4, 699	2, 223	2, 869	3, 257
Silk wearing apparel	--------	--------	--------	--------	2, 648	6, 046	4, 949	5, 826
Wool fabrics .... pounds..	--------	850	938	621	2, 207	2, 060	2, 490	1, 578
Rags for paper stock .... do....	43, 598	87, 490	97, 150	96, 618	447	1, 923	2, 654	2, 050
Cigarette paper .... do....	--------	10, 762	10, 504	8, 094	[2] 555	2, 966	2, 891	2, 134
Pearls not strung .... number..	--------	385	763	--------	2, 372	4, 071	5, 021	2, 995
Other precious and semiprecious stones	--------	--------	--------	--------	4, 620	2, 764	4, 017	4, 367
Gold and silver threads, braids, fabrics, laces, etc .... pounds..	--------	1, 745	1, 918	--------	--------	3, 294	3, 459	2, 600
Perfumery, cosmetics, etc	--------	--------	--------	--------	1, 476	4, 987	5, 142	4, 494
Works of art (100 years old) . pounds..	--------	1, 390	2, 417	--------	15, 596	8, 218	11, 161	12, 690

[1] Less than $500.

[2] 1913 only.

NETHERLANDS

Exports to the Netherlands were valued at $136,000,000 in 1926, a decrease of 4 per cent. Aggregate export values of raw cotton, copper, and automobiles decreased, while wheat exports more than doubled in both quantity and value. There was also a substantial increase in exports of gasoline.

Imports from the Netherlands were about one-tenth larger than in 1925, being valued at $102,000,000. This increase was the result of larger American purchases of cut diamonds and of miscellaneous manufactured products. Imports of crude rubber were about one-third smaller than in 1925.

Chart XXIX.—TRADE OF THE UNITED STATES WITH THE NETHERLANDS

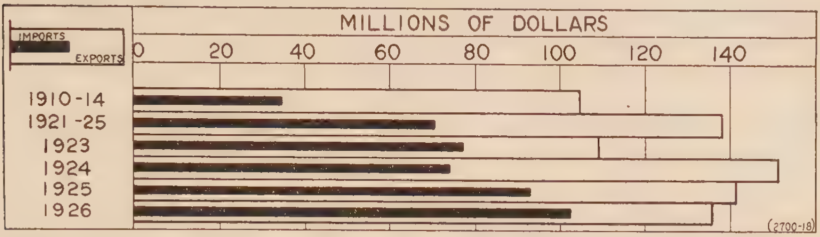


Table 46.—Principal Commodities in Trade of the United States with Netherlands

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**104, 575**	**151, 764**	**141, 518**	**135, 795**
Bacon……pounds	4, 409	20, 084	4, 976	4, 229	519	2, 418	859	586
Oleo oil……do	[1] 46, 337	45, 609	31, 945	27, 434	[1] 5, 392	6, 602	3, 958	3, 245
Lard……do	36, 501	66, 150	36, 944	48, 365	4, 052	9, 087	6, 074	7, 208
Corn, grain……bushels	5, 111	2, 218	719	2, 855	3, 178	2, 098	741	2, 538
Rye, grain……do	503	2, 685	3, 189	810	201	3, 197	4, 295	834
Wheat, grain……do	8, 351	14, 056	5, 993	14, 710	8, 244	20, 363	10, 607	21, 759
Wheat, flour……barrels	819	2, 221	907	1, 225	4, 290	12, 333	6, 620	8, 279
Linseed cake……pounds	280, 783	400, 582	405, 354	417, 013	4, 382	8, 811	9, 082	8, 776
Tobacco, leaf……do	25, 284	41, 625	20, 803	29, 566	2, 393	5, 671	4, 868	5, 602
Cotton, unmanufactured……bales	24	120	149	124	1, 159	16, 832	18, 748	11, 009
Gasoline and naphtha……gallons	9, 385	28, 461	37, 880	71, 754	855	3, 275	5, 108	9, 843
Illuminating oil……do	129, 695	70, 990	77, 634	74, 023	6, 222	4, 245	4, 669	5, 625
Copper (ingots, bars, rods)……pounds	194, 987	60, 073	92, 593	64, 399	26, 868	8, 320	13, 363	9, 085
Automobiles, passenger……number [2]	[1] 111	1, 937	2, 430	1, 666	[1] 94	2, 151	3, 061	1, 960
Imports					**34, 937**	**74, 044**	**92, 539**	**101, 894**
Rubber, crude……pounds	588	4, 504	6, 843	5, 500	399	1, 148	5, 093	3, 352
Bulbs, roots and corms……number	[1] 213, 778	185, 368	216, 335	193, 747	[1] 1, 057	4, 921	6, 691	5, 619
Tobacco, leaf, wrapper……pounds	6, 087	5, 821	6, 261	6, 323	7, 140	14, 941	14, 745	14, 406
Diamonds, cut, unset……carats	--------	216	252	267	9, 655	21, 217	25, 264	27, 079
Tin (bars, blocks, pigs)……pounds	2, 680	5, 650	9, 263	16, 069	1, 105	2, 922	5, 265	10, 421
Dead or creosote oil……gallons	2, 810	10, 325	30, 325	23, 454	169	1, 612	3, 974	3, 159

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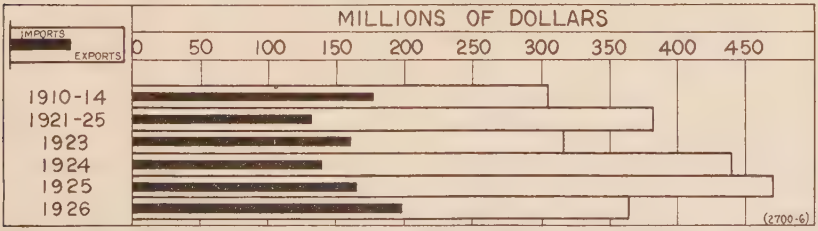
[1] 1913 only.

[2] Full figure (000 not omitted).

GERMANY

Exports to Germany decreased from $470,000,000 in 1925 to $364,000,000 in 1926, a decline of about 23 per cent. Exports of raw cotton which form about one-half of the total trade decreased in value $71,000,000, and there were also considerable decreases in exports of copper and automobiles. Wheat, gasoline, cottonseed, and rosin were exported in larger amounts than in 1925.

Chart XXX.—TRADE OF THE UNITED STATES WITH GERMANY



Imports were over one-fifth larger than in the preceding year and reached a value of $198,000,000. Furs, gloves, and wood pulp were some of the commodities which showed important increases, while imports of dyes and newsprint decreased.

Table 47.—Principal Commodities in Trade of the United States with Germany

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports--------	--------	--------	--------	--------	**304, 098**	**440, 418**	**470, 344**	**364, 115**
Bacon--------pounds	1, 205	45. 353	14, 779	9, 982	149	5, 664	2, 318	1, 384
Milk, condensed, evaporated, powdered--------pounds	(1)	63, 392	31, 470	4, 889	(1)	5, 291	3, 115	563
Lard--------do	142. 311	308, 541	193, 004	199, 534	15, 683	40, 972	33, 043	30, 910
Furs, undressed--------number	--------	2, 864	3, 225	2, 707	[2] 6, 184	4, 782	5, 023	3, 380
Barley, grain--------bushels	1, 562	4, 756	6. 538	1, 205	914	4, 835	6, 421	894
Rye, grain--------do	94	4, 290	6, 175	588	65	4, 618	8, 327	606
Wheat, grain--------do	6, 155	7, 150	2, 504	6, 877	6, 088	10, 218	4, 302	10, 473
Wheat, flour--------barrels	187	1, 861	1, 085	657	991	10, 750	8, 574	4, 554
Cottonseed cake and meal--pounds	316, 183	140, 102	144, 743	280, 822	4, 448	2, 946	3. 068	4, 508
Prunes--------do	29, 420	89, 792	20, 638	28, 888	1, 416	4, 240	1, 242	1, 545
Tobacco, leaf--------do	36, 073	44, 165	21, 587	27, 854	4, 537	7, 139	5, 125	5, 416
Cotton, unmanufactured--------bales	2, 437	1, 641	2. 029	2, 083	154, 455	223, 503	246, 315	175, 114
Boards, etc., southern pine--------board feet	[2] 57, 728	14, 714	33, 322	19, 831	[2] 1, 434	844	2, 130	1. 241
Rosin--------barrels	407	310	250	232	4, 021	2, 877	3, 910	5, 331
Gasoline and naphtha--------gallons	11, 057	37, 777	46, 313	66, 786	880	4, 872	5, 782	9, 045
Lubricating oil--------do	22, 861	37, 758	41, 571	34, 646	2, 949	6, 278	7, 442	6, 005
Sulphur--------tons	7	80	137	105	139	1, 358	2, 638	2, 094
Copper (ingots, bars, rods)-pounds	229, 230	207, 574	230, 411	153, 360	32, 909	28, 518	33, 156	21, 803
Brass and bronze manufactures-do	--------	19, 473	36, 154	--------	692	1, 834	4, 114	1, 319
Lead (pigs, bars)--------do	--------	17, 776	52, 187	35, 446	--------	1, 074	3, 980	2, 301
Metal working machinery--------	--------	--------	--------	--------	2, 525	545	2. 986	1, 018
Adding and calculating machines--------number [3]	--------	2, 773	6, 570	6, 675	[2] 370	1, 193	2, 285	1, 507
Automobiles, passenger--------do [3]	[2] 845	2, 347	3, 623	3, 220	[2] 764	2, 724	4, 599	3, 439
Imports--------	--------	--------	--------	--------	**176, 462**	**139, 258**	**164, 251**	**198, 461**
Furs, undressed--------number	--------	5, 429	4, 866	--------	5, 480	5, 915	6, 607	8, 881
Gloves, leather--------pairs	--------	2, 375	2, 737	3, 259	3, 281	1, 930	2, 458	3, 124
Rubber, crude--------pounds	7, 266	794	6, 884	3, 600	5, 860	175	4, 863	1, 733
Tobacco, unmanufactured--------do	1, 440	2, 672	929	760	797	3, 035	772	565
Cotton gloves--------dozen pairs	--------	1, 340	1, 611	2, 040	--------	4, 147	5, 319	6, 273
Cotton laces, machine made-pounds	--------	803	522	--------	--------	2, 572	1, 647	1, 037
Chemical wood pulp--------tons	68	74	61	82	2, 649	4, 366	3, 796	5, 623
Rags for paper stock--------pounds	44, 707	110, 543	140, 769	122, 796	777	2, 384	3, 756	2, 385
Standard newsprint paper--------do	1, 437	77, 801	51, 730	25, 769	80	2, 358	1, 606	767
Plate glass, unsilvered--square feet	200	3, 235	2, 441	5, 544	52	1, 906	1, 005	1, 842
China, decorated--------pounds	--------	24, 793	22, 373	--------	3, 530	3, 853	3, 584	3, 354
Colors, dyes, stains, etc--------do	--------	1, 653	2, 932	2, 179	--------	2, 079	3, 758	2, 323
Potash, chloride, crude--------tons	204	72	108	117	6, 768	2, 185	3, 523	3, 664
Potash, sulphate, crude--------do	43	66	59	64	1, 740	2, 459	2, 277	2, 561
Manure salts--------do	[2] 169	129	259	201	[2] 1, 755	1, 242	2, 369	2, 082
Toys, including dolls--------pounds	--------	19, 110	12, 249	--------	6, 918	4, 332	3, 157	3, 301
Works of art (100 years old)--------do	--------	91	187	--------	1, 293	427	5, 697	3, 318

[1] Less than 500. [2] 1913 only. [3] Full number (000 not omitted).

SWITZERLAND

American export trade with Switzerland declined slightly in 1926, while imports showed a moderate increase according to our statistics. As all of the trade with Switzerland has to pass through other countries and is often credited to them its importance is greatly understated by our figures, particularly in the case of export trade. The direct shipments recorded show a decrease for automobiles, but gains for typewriters and calculating machines.

Imports from Switzerland according to American statistics increased from $40,300,000 in 1925 to $42,100,000 in 1926. Increases were shown for embroidery and many types of cotton cloth, while imports of cheese and coal-tar dyes were smaller.

CZECHOSLOVAKIA, AUSTRIA, AND HUNGARY

Trade of the United States with the countries of central Europe—Czechoslovakia, Austria, and Hungary—also passes through other countries and the recorded statistics of exports are in most cases much too small. American exports to these countries consist largely of cotton, grain, fats, mineral oils, automobiles, and miscellaneous machinery.

According to Czechoslovakian official figures, imports to that country from the United States decreased in 1926 by about 32 per cent. Shipments of grain from the United States were only about one-fourth as large as in 1925 and there were declines of about one-half in the value of shipments of fats and of more than one-third in the value of cotton shipments. Imports from the United States of automobiles, machinery, and rubber manufactures, on the other hand, show substantial gains.

Imports into the United States from each of these three central European countries increased during 1926 according to our trade statistics. Imports from Czechoslovakia, which is the most important in our commerce, reached a total value of $28,300,000, showing an increase of about 24 per cent. The leading articles in this trade are cotton and linen textiles, furniture, glass, china, imitation precious stones, and beads.

NORTHEASTERN EUROPE

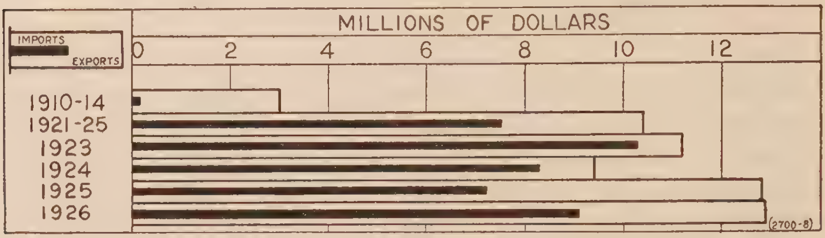
Northeastern Europe is a region which includes Finland, the Baltic States, Russia, Poland, and Danzig. Comparisons of the trade with these countries with pre-war years are much affected by the rearrangement of boundaries. Furthermore, much of the trade with both Russia and Poland passes through the Baltic States, Germany, and other countries. Consequently the published figures do not accurately report either the total trade or the changes from year to year. The total direct exports to northeastern Europe in 1926 amounted to $67,000,000, which was 26 per cent less than in 1925, while imports from the region amounted to $34,900,000, an increase of 27 per cent.

Finland.

Exports of the United States to Finland totaled $12,900,000 in 1926, which is almost exactly the same value as in 1925. The chief items in this trade are usually rye, wheat flour, cotton, and petroleum products. Exports of rye and unmanufactured cotton were both much smaller during the past year than in 1925. Imports into the United

States from Finland increased 26 per cent in 1926 to a total value of $9,100,000, as a result of larger purchases of wood pulp and newsprint.

Chart XXXI.—TRADE OF THE UNITED STATES WITH FINLAND



Baltic States.

Our reported exports to the Baltic States, Estonia, Latvia, and Lithuania—which are always very small—declined in 1926 to a value of $1,600,000. Imports, which were valued at $8,100,000, were about two-thirds larger than in 1925. Most of these imports are from Latvia and consist of undressed furs, calfskins, platinum, and flax, which largely originate in Russia. During the past year imports of calfskins increased by about one-half, while flax imports decreased.

Russia.

Exports to Russia were valued at $48,500,000 in 1926, a decrease of 29 per cent. The value of shipments of unmanufactured cotton declined from $41,000,000 to about $33,000,000, and shipments of wheat flour, which amounted to $2,400,000 in 1925, were practically negligible in 1926. Russia, on the other hand, continued to be our most important European market for wheel tractors, which were shipped there to a value of $4,500,000. Imports from Russia increased 4.6 per cent during 1926 to a value of $13,500,000. The principal items in this trade were furs, manganese ores, and sausage casings.

Poland and Danzig.

Direct exports to Poland and Danzig were valued at $3,900,000 in 1926, a decrease of 40 per cent. Exports of wheat flour and leaf tobacco showed very drastic decreases and there was also a moderate reduction in the value of lard exports. Imports, which consist chiefly of calfskins, furs, wood products, and bristles were about two-thirds larger in 1926, being valued at $4,100,000.

SOUTHWESTERN EUROPE

The region designated as southwestern Europe includes Italy, Spain, Portugal, the Azores, the Madeira Islands, and Gibraltar. Exports to this region decreased from $296,000,000 in 1925 to $240,000,000 in 1926 as a result of smaller shipments to Italy and

Spain. Purchases from Spain and Portugal, on the other hand, were larger, causing an increase in imports from $140,000,000 to $151,000,000.

ITALY

Exports to Italy were valued at $157,000,000 last year, which was 23 per cent less than in 1925. Shipments of pork products decreased by four-fifths and exports of wheat, tobacco, and copper were also much smaller. Cotton exports increased in quantity but were smaller in value, while coal exports were about twice as large as the year before. Imports were of about the same value as in 1925, amounting to $102,500,000. Imports of cheese, walnuts, and straw hats reached higher aggregate values, whereas imports of raw silk and olive oil decreased.

Chart XXXII.—TRADE OF THE UNITED STATES WITH ITALY

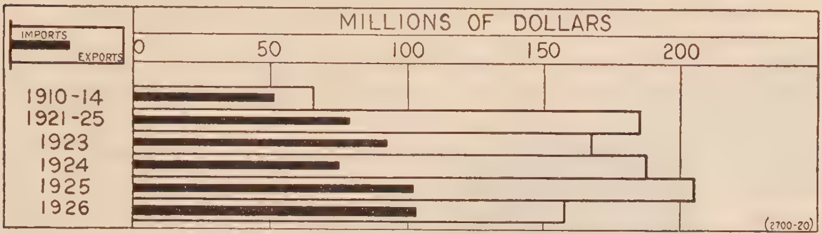


Table 48.—Principal Commodities in Trade of the United States with Italy

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1924	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	**65, 966**	**187, 146**	**205, 150**	**157, 402**
Bacon.........pounds	7, 561	29, 973	6, 901	757	837	3, 471	1, 044	106
Lard.........do	4, 656	63, 135	28, 507	5, 901	492	8, 546	4, 794	905
Wheat, grain.........bushels	2, 367	16, 329	14, 360	8, 401	2, 411	23, 145	26, 394	12, 293
Tobacco, leaf.........pounds	41, 690	16, 846	11, 263	5, 814	5, 147	3, 723	2, 877	1, 383
Cotton, unmanufactured.........bales	482	588	727	816	31, 293	84, 368	91, 493	76, 594
Coal, bituminous.........tons	357	871	778	1, 542	1, 014	4, 225	3, 535	8, 108
Gasoline and naphtha.........gallons	6, 811	39, 919	44, 195	43, 373	658	5, 040	6, 742	6, 127
Illuminating oil.........do	27, 651	27, 773	22, 748	21, 723	1, 373	2, 084	1, 422	1, 845
Gas and fuel oil.........do	[1] 8, 673	89, 515	47, 822	11, 730	[1] 310	3, 214	1, 989	472
Lubricating oil.........do	8, 185	18, 295	21, 713	19, 273	1, 019	4, 661	5, 611	4, 686
Paraffin wax.........pounds	20, 150	54, 164	50, 520	48, 548	696	2, 556	2, 676	2, 871
Copper (ingots, bars, rods).........do	39, 875	108, 093	126, 472	82, 957	5, 722	14, 789	18, 197	11, 700
Automobiles, passenger.........number [2]	331	2, 600	8, 141	4, 298	[1] 281	875	2, 591	1, 469
Imports	--------	--------	--------	--------	**51, 149**	**75, 011**	**102, 205**	**102, 527**
Cheese.........pounds	20, 835	31, 256	33, 829	35, 026	3, 950	8, 906	8, 576	10, 348
Canned tomatoes and paste.........do	--------	55, 402	104, 616	100, 183	--------	3, 125	5, 881	5, 706
Lemons.........do	[3] 146, 812	46, 838	115, 401	73, 771	3, 915	944	2, 639	1, 698
Almonds.........do	3, 909	8, 405	5, 769	6, 937	814	2, 271	2, 236	2, 414
Filberts.........do	9, 152	7, 299	8, 952	10, 050	637	800	1, 408	1, 440
Walnuts.........do	5, 755	10, 699	10, 389	13, 009	504	1, 652	1, 608	2, 064
Olive oil, edible.........do	24, 699	53, 236	61, 984	55, 402	4, 264	8, 757	10, 551	9, 882
Olive oil, inedible.........do	160	22, 244	37, 009	21, 704	90	2, 018	2, 992	1, 831
Tobacco, unmanufactured.........do	1	5, 605	10, 332	10, 764	(4)	3, 676	6, 237	4, 369
Hats, bonnets, hoods of straw, etc.........number	--------	3, 275	4, 771	4, 510	449	1, 481	2, 368	2, 702
Silk, raw.........pounds	2, 605	1, 001	1, 929	1, 137	10, 007	7, 330	12, 121	6, 480

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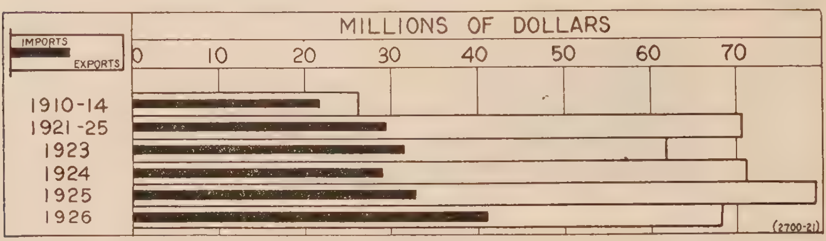
[1] 1913 only.
[2] Full number (000 not omitted).
[3] Average for years 1910–1913.
[4] Less than $500.

SPAIN

United States exports to Spain were valued at $68,000,000 in 1926, a decrease of 14 per cent. The value of raw cotton exports was about $10,000,000 less than in 1925, which accounted for most of the decrease in the total value of the trade. Other important items in the export trade are passenger automobiles, refined copper, petroleum products, leaf tobacco, wheat, and lumber. Imports from Spain increased 26 per cent during the past year to a total value of $41,000,000. Cork, almonds, olives, olive oil, goat and kid skins, and unrefined copper were all imported in larger amounts.

Chart XXXIII.—TRADE OF THE UNITED STATES WITH SPAIN



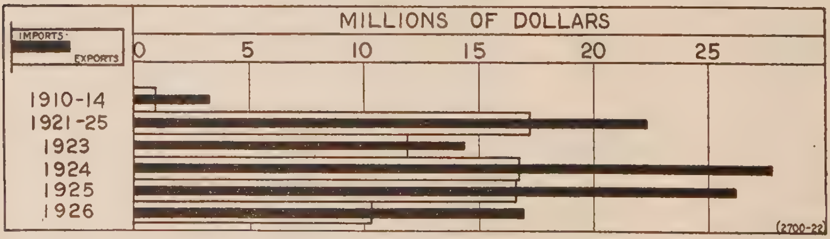
PORTUGAL

Our foreign trade with Portugal was substantially larger in 1926 than in earlier years. Exports reached the record total of $11,600,000. In consequence of larger shipments of cotton and many types of manufactured products, imports were one-half larger than in the preceding year, being valued at $5,600,000. Cork and fish are the principal items in this trade.

SOUTHEASTERN EUROPE

Southeastern Europe includes Bulgaria, Greece, Rumania, Turkey, Yugoslavia, and Albania. Most of these countries trade chiefly through the Mediterranean and there is a great deal of indirect trade. Comparisons with pre-war statistics are very unsatisfactory as a result of boundary changes.

Chart XXXIV.—TRADE OF THE UNITED STATES WITH GREECE



Both the exports and imports of the United States to southeastern Europe were smaller in 1926. Exports which are largely credited to Greece decreased 23 per cent to a value of $18,500,000. Wheat, flour, and oleo oil, the principal articles in this trade, all declined. Imports from southeastern Europe aggregated $29,600,000 in 1926, which was 15 per cent less than in 1925. Leaf tobacco, woolen carpets, currants, olives, and olive oil are the principal commodities imported. Tobacco imports from Greece were much smaller during the past year whereas direct imports of tobacco from Turkey showed a substantial increase. Imports of olive oil and currants were small.

TRADE WITH ASIA AND OCEANIA

From the standpoint of trade routes, volume, and commodity character the trade with western Asia, commonly called the Near East, differs very distinctly from that with eastern and southern Asia and Oceania, which together are usually designated as the Far East. The statistics given for Oceania do not include trade with Hawaii, which is treated as domestic.

Table 49.—Trade with Asia and Oceania, by Commercial Regions and Countries

[Values in millions and tenths of millions of dollars, i. e., 00, 000 omitted]

Region and country	Exports					Imports				
	1910–1914	1921–1925	1924	1925	1926	1910–1914	1921–1925	1924	1925	1926
Asia, groups 1, 2, and 3	121.0	498.9	514.6	486.6	564.5	258.5	942.9	930.7	1,319.1	1,400.6
1. Western	2.6	8.0	5.5	7.1	6.1	13.6	21.3	22.3	29.0	26.2
Hejaz, Arabia, etc	-------	.4	.3	.7	1.0	-------	2.5	3.9	5.0	4.1
Palestine and Syria	-------	3.1	3.1	4.8	3.4	-------	2.3	3.5	4.4	2.9
Aden	1.3	1.1	.5	.6	.6	1.8	2.2	2.2	3.3	2.9
Persia	.1	1.0	.9	.4	.8	1.4	4.8	5.5	7.2	8.4
Turkey in Asia	1.1	2.5	.7	.6	.4	10.4	9.4	7.3	9.0	7.9
2. Southern and Southeastern	40.6	119.1	120.0	135.2	166.8	119.8	425.0	431.4	715.4	815.2
British East Indies, total	14.2	47.7	44.3	52.1	66.2	90.9	289.3	276.3	506.7	590.5
British India	10.9	38.2	34.9	38.3	50.0	56.4	109.0	103.3	144.5	150.9
British Malaya	2.9	8.1	7.8	11.4	13.6	24.6	153.3	147.7	314.0	383.8
Ceylon	.4	1.5	1.6	2.4	2.6	10.0	27.1	25.3	48.2	55.8
Dutch East Indies	3.1	17.2	14.5	19.2	27.6	9.2	55.0	57.5	95.8	119.6
French Indo-China	.2	1.1	.8	1.4	2.2	(1)	.2	.2	.1	.2
Philippine Islands	22.6	51.9	59.5	61.1	68.6	19.4	80.1	97.1	111.8	103.8
Siam	.5	1.2	.9	1.4	1.9	.1	.3	.3	.8	.6
3. Eastern	77.8	371.7	389.1	344.4	391.7	125.2	496.6	476.9	574.7	559.2
China, total	31.4	128.7	135.3	114.0	129.5	38.5	160.7	136.8	190.2	157.9
China	21.6	104.2	109.2	94.4	110.2	35.3	142.0	117.9	168.9	143.2
Hongkong	9.1	17.8	17.5	14.3	12.8	3.1	15.9	16.5	17.8	11.3
Kwantung (leased territory)	.7	6.7	8.6	5.3	6.5	.1	2.7	2.4	3.5	3.5
Japan	45.3	241.9	253.0	229.6	260.8	85.0	335.4	340.1	384.2	400.7
Russia in Asia	1.1	1.1	.8	.7	1.4	1.7	.5	(1)	.3	.6
4. Oceania	47.7	141.4	156.5	189.5	212.7	17.3	54.0	48.9	77.8	68.3
Australia	38.7	111.3	125.2	148.5	168.7	12.3	37.5	32.9	55.1	45.7
New Zealand	7.8	28.2	29.3	38.4	41.6	3.8	13.8	13.5	19.7	18.8
Other Oceania	1.2	2.0	2.0	2.6	2.4	1.2	2.6	2.6	3.0	3.8
Far East (Groups 2, 3, 4)	166.2	632.2	665.6	669.0	771.1	262.2	975.6	957.3	1,368.0	1,442.7

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[1] Less than $50,000.

Exports to Asia were valued at $564,500,000 in 1926, an increase of 16 per cent. Gains were shown by trade with southern and southeastern Asia and eastern Asia, while there was a moderate decline in exports to western Asia. Shipments to Oceania reached an aggregate value of $213,000,000, an increase of 12 per cent. Imports from Asia last year exceeded $1,400,000,000, which was the largest total for any continent and was over 6 per cent greater than in 1925. The entire gain was confined to the trade with the southern part of the continent. Imports from Oceania declined 12 per cent to a value of $68,000,000.

Table 50.—Percentages of Distribution and Change in Trade with Asia and Oceania, by Countries

Region and country	Per cent of total trade of the United States								Per cent change from—			
	Exports				Imports				1910–1914		1925	
	1910–1914	1921–1925	1925	1926	1910–1914	1921–1925	1925	1926	Exports	Imports	Exports	Imports
Asia and Oceania, total	**7.8**	**14.6**	**13.8**	**16.2**	**16.3**	**28.9**	**33.1**	**33.2**	**+360.6**	**+432.6**	**+15.0**	**+5.2**
Western Asia	.1	.2	.1	.1	.8	.6	.7	.6	+135.6	+93.2	−13.4	−9.4
Southern and southeastern	1.9	2.7	2.8	3.5	7.1	12.3	16.9	18.4	+310.6	+580.7	+23.4	+13.9
Eastern	3.6	8.5	7.0	8.1	7.4	14.4	13.6	12.6	+403.2	+346.6	+13.7	−2.7
Oceania	2.2	3.2	3.9	4.4	1.0	1.6	1.8	1.5	+345.8	+295.6	+12.3	−12.2
British India	.5	.9	.8	1.0	3.3	3.2	3.4	3.4	+358.6	+167.7	+30.6	+4.4
Ceylon	(1)	(1)	.1	.1	.6	.8	1.1	1.3	+526.6	+460.0	+1.4	+15.7
British Malaya	.1	.2	.2	.3	1.5	4.4	7.4	8.7	+371.6	+1458.6	+20.9	+22.2
Dutch East Indies	.1	.4	.4	.6	.5	1.6	2.3	2.7	+791.2	+1201.0	+43.8	+24.8
Philippine Islands	1.0	1.2	1.2	1.4	1.2	2.3	2.6	2.3	+203.8	+434.2	+12.4	−7.2
China	1.0	2.4	1.9	2.3	2.1	4.1	4.0	3.2	+410.7	+305.2	+16.7	−15.3
Hongkong	.4	.4	.3	.3	.2	.5	.4	.3	+40.3	+269.8	−10.4	−36.5
Japan	2.0	5.4	4.7	5.4	5.0	9.7	9.1	9.0	+475.7	+371.4	+13.5	+4.3
Australia	1.8	2.5	3.0	3.5	.7	1.1	1.3	1.0	+335.7	+271.5	+13.6	−17.0
New Zealand	.4	.6	.8	.9	.2	.4	.5	.4	+433.6	+401.0	+8.4	−4.6
Far East, total	**7.7**	**14.4**	**13.6**	**16,0**	**15,5**	**28.3**	**32.4**	**32.6**	**+364.0**	**+450,2**	**+15.3**	**+5.5**

[1] Less than one-tenth of 1 per cent.

WESTERN ASIA

Western Asia includes the Arabian Peninsula, Turkey in Asia, and Persia. Export trade to this region is small, but the imports reached a considerable volume. Both export and import trade decreased in 1926. Exports totaled $6,100,000, a decline of 13 per cent, while imports, which were valued at $26,200,000, were 9 per cent smaller than in 1925. Trade with each of the countries in this region except Persia decreased. The chief items in our imports from these countries are hides and skins, rugs, mohair, gums, licorice root, filberts, figs, raisins, and opium.

FAR EASTERN TRADE

Noteworthy increases were shown in both the export and import trade with the Far East in 1926. Exports increased from $669,000,000 to $771,000,000 as a consequence of much larger shipments of various staple products. Mineral oils, automobiles, machinery, iron and steel, and lumber were exported in greater quantity and value. Exports of raw cotton were slightly smaller in value, owing to the sharp decline in price, but were two-fifths larger in quantity than in 1925.

Imports from the Far East increased 5.5 per cent to a value of $1,443,000,000. This gain was caused primarily by a large increase in the quantity and value of our imports of rubber. Imports of silk and of skins were about the same size as in the previous year, while both the quantity and value of wool imported were smaller.

BRITISH EAST INDIES

The principal commodities in our trade with the British East Indies as a whole is shown in the accompanying table while changes in the aggregate value of trade with India and Malaya are shown separately in two diagrams. About three-fourths of the United States exports to this area were taken by India, whereas only one-fourth of the imports came from there. In 1926, United States exports to India increased about 30 per cent to a value of $50,000,000. Unmanufactured cotton was exported to a value of $3,672,000 as compared with $53,000 in 1925, while exports of rubber manufactures and canned fish to India doubled and exports of illuminating oil, iron and steel products, and machinery were also much larger. Imports of goat skins, shellac, crude rubber, and tea from India increased, while cotton and wool imports decreased.

Table 51.—Principal Commodities in Trade of the United States with British East Indies

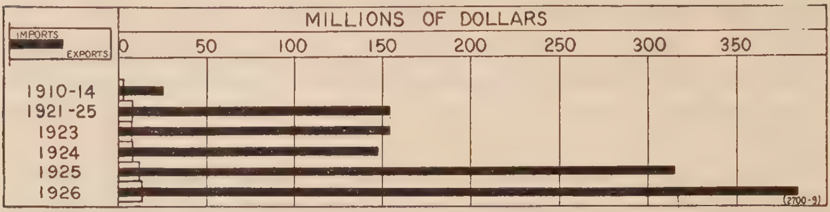
Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**14, 193**	**44, 290**	**52, 055**	**66, 160**
Cigarettes thousands [1]	862	987	1, 176	845	1, 271	1, 448	1, 696	1, 275
Illuminating oil gallons	46, 071	73, 937	70, 805	76, 425	2, 967	6, 372	4, 633	6, 156
Lubricating oil do	8, 876	20, 754	18, 894	18, 167	1, 089	3, 644	3, 929	4, 015
Automobiles, passenger number [2]	[3] 865	3, 281	4, 519	4, 398	[3] 706	2, 444	3, 819	3, 738
Imports					**90, 949**	**276, 288**	**506, 686**	**590, 493**
Goat and kid skins pounds	41, 525	19, 650	31, 850	36, 951	8, 055	6, 338	11, 106	14, 119
Coconut meat, prepared do	[3] 5, 857	31, 075	22, 574	20, 688	[3] 430	2, 320	1, 857	1, 739
Castor beans do	28, 134	71, 355	84, 378	90, 353	618	3, 182	3, 789	3, 060
Tea do	10, 343	23, 696	23, 741	23, 530	1, 721	8, 466	9, 357	9, 152
Rubber, crude do	8, 315	472, 625	587, 537	659, 363	7, 183	110, 088	282, 180	362, 356
Shellac do	20, 057	22, 504	18, 631	30, 390	2, 780	12, 151	9, 557	10, 232
Jute, unmanufactured tons	89	67	64	67	6, 813	7, 659	12, 110	14, 368
Burlaps pounds	359, 558	494, 153	559, 081	525, 981	24, 155	49, 049	74, 089	70, 889
Jute bags do	[3] 41, 767	34, 646	46, 033	46, 607	[3] 3, 607	3, 247	5, 707	5, 870
Tin in bars, blocks, etc do	38, 226	101, 876	109, 940	95, 839	14, 853	47, 844	60, 618	56, 327

[1] Expressed in millions (000,000 omitted).

[2] Full number (000 not omitted).

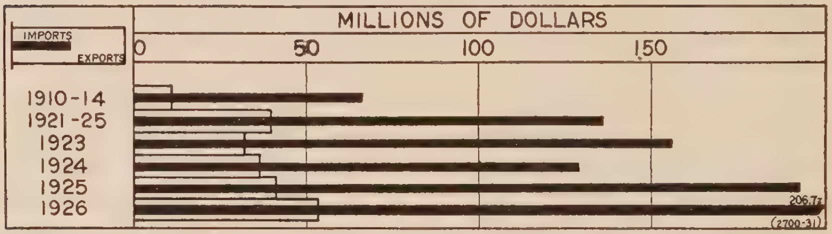
[3] 1913 only.

Chart XXXV. -TRADE OF THE UNITED STATES WITH BRITISH MALAYA



About two-thirds of our total imports from the British East Indies were credited to British Malaya in 1926. Rubber and tin are the principal commodities in this trade. Imports of rubber from Malaya were 29 per cent larger than in the previous year, while tin imports showed a decrease of 7 per cent.

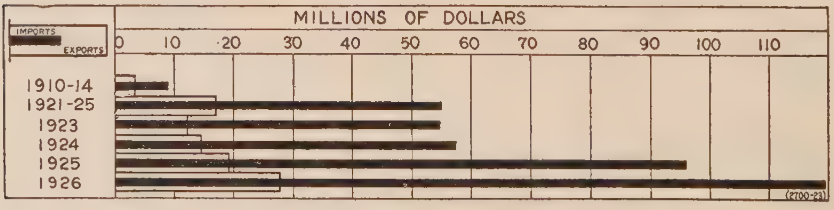
Chart XXXVI.—TRADE OF THE UNITED STATES WITH BRITISH INDIA AND CEYLON



DUTCH EAST INDIES

Exports from the United States to the Dutch East Indies were valued at $27,600,000 last year, an increase of 44 per cent, as a result of larger shipments of automobiles, machinery, iron and steel, and canned fish. United States imports from the Dutch East Indies increased by one-fourth to $120,000,000, a new record total. Increases were shown in the imports of rubber, kapok, tin, tea, and goatskins, while coffee and pepper were imported in smaller quantities.

Chart XXXVII.—TRADE OF THE UNITED STATES WITH DUTCH EAST INDIES



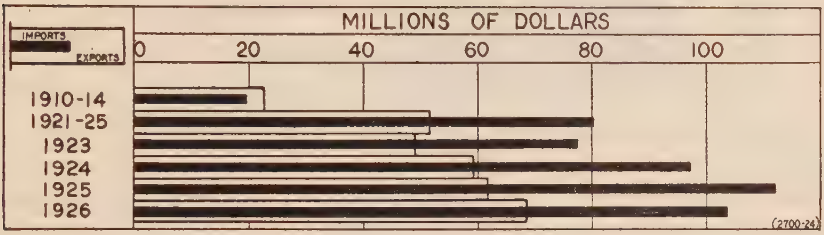
INDO-CHINA AND SIAM

Statistics of direct trade between the United States and Indo-China and Siam somewhat understate the true facts because considerable trade passes through Singapore, Hongkong, and other entrepôt markets and is credited to them in our statistics. Direct exports to these countries increased about one-half in 1926, while imports were about the same as in 1925. Mineral oil, machinery, and cigarettes are the principal items in the export trade.

PHILIPPINE ISLANDS

Exports to the Philippine Islands were 12 per cent larger in 1926, reaching a value of $68,600,000. The United States furnishes over one-half of the foreign merchandise which is consumed in the Philippine Islands. In 1926 exports of cotton piece goods, iron and steel, machinery, automobiles, and rubber manufactures from the United States to the Islands increased, while exports of leather goods were somewhat smaller.

Chart XXXVIII.—TRADE OF THE UNITED STATES WITH THE PHILIPPINES



Imports from the Philippine Islands declined from $112,000,000 in 1925 to $104,000,000 in 1926, in consequence of smaller purchases of sugar and cigars. Imports of various coconut products, on the other hand, were considerably larger.

Table 52.—Principal Commodities in Trade of the United States with Philippine Islands

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports	--------	--------	--------	--------	22,596	59,519	61,061	68,648
Milk, condensed, evaporated, powdered .... pounds	2,282	16,356	19,095	19,695	176	2,199	2,605	2,592
Wheat flour .... barrels	279	702	564	610	1,126	3,978	4,148	4,137
Cotton cloth .... square yards[1]	66,387	67,514	79,752	101,072	4,187	9,640	11,513	13,362
Illuminating oil .... gallons	10,747	12,432	14,333	11,782	929	1,932	2,172	1,824
Gasoline and naphtha .... do	929	9,044	5,248	14,043	157	1,901	1,119	2,843
Gas and fuel oil .... do	[2] 7	36,939	39,103	30,361	[2] 1	1,245	1,307	733
Iron and steel sheets, galvanized .... pounds	[2] 16,178	30,388	41,223	52,332	[2] 522	1,804	1,944	2,664
Automobiles, passenger .... number[3]	[2] 517	2,255	3,173	4.578	[2] 577	1,724	2,238	3,108
Imports	--------	--------	--------	--------	19,430	97,088	111,820	103,797
Coconut meat, prepared .... pounds	--------	16,074	24,509	28,864	--------	1,506	2,383	2,683
Copra, not prepared .... do	26,159	238,579	284,059	275,696	1,183	10,507	13,999	14,037
Coconut oil .... do	4,088	224,635	232,499	245,129	372	17,288	19,650	22,088
Sugar, cane .... do	232,340	678,014	985,549	760,871	5,827	39,465	42,130	29,606
Cigars and cheroots .... do	1,030	3,159	3,226	3,021	1,517	4,693	5,133	5,047
Cotton wearing apparel	--------	--------	--------	--------	5	3,703	3,959	5.422
Manila .... tons	71	81	62	69	9,736	14,235	18,091	18,213
Hats, bonnets, hoods of straw, etc. .... number	--------	306	644	743	225	592	1,465	1,483
Mahogany, sawed .... board feet	[2] 558	16,437	25,079	26,347	[2] 36	908	1,350	1,225

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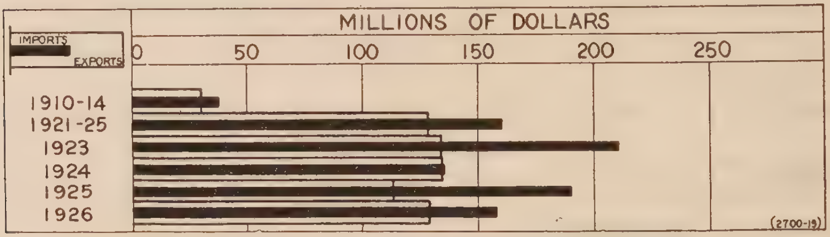
[1] Stated in linear yards for years 1910–1914. [2] 1913 only. [3] Full number (000 not omitted).

CHINA

Exports to China (including Hong Kong and Kwantung) increased 14 per cent during the past year and reached a value of $129,000,000. Cotton exports were over twice as large as in 1925 and exports of cigarettes and wheat also increased. Shipments of petroleum products and copper were smaller.

Chart XXXIX.—TRADE OF THE UNITED STATES WITH CHINA (INCLUDING KWANTUNG LEASED TERRITORY AND HONG KONG)



Imports from China declined from $190,000,000 in 1925 to $158,000,000 in 1926 as a result of the disturbed conditions in the country. Raw silk imports, which constitute about one-third of the trade, decreased and imports of Chinese wood oil, cotton, and furs were also curtailed. Carpet wool imports showed a particularly sharp decline, being about two-thirds less than in 1925.

Table 53.—Principal Commodities in Trade of the United States with China, Including Hong Kong and Kwantung

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**31, 391**	**135, 279**	**114, 015**	**129, 490**
Wheat, grain ... bushels	18	2, 254	391	795	15	2, 323	662	1, 091
Wheat, flour ... barrels	1, 417	2, 763	899	1, 107	5, 589	13, 394	6, 034	6, 857
Tobacco, leaf ... pounds	7, 770	72, 816	84, 963	86, 442	1, 192	17, 322	19, 565	20, 668
Cigarettes ... thousands	654	8, 109	5, 398	6, 897	992	14, 562	9, 305	12, 114
Cotton, unmanufactured ... bales	14	31	56	172	810	4, 317	6, 496	13, 276
Boards, etc., Douglas fir ... board feet	[1] 96, 270	111, 016	97, 909	140, 322	[1] 1, 068	2, 472	1, 928	2, 679
Illuminating oil (kerosene) ... gallons	100, 782	176, 219	167, 221	121, 710	7, 202	23, 604	21, 289	17, 026
Lubricating oil ... do	1, 837	8, 066	6, 287	7, 118	290	1, 932	1, 724	1, 655
Copper (ingots, bars) ... pounds	857	63, 767	13, 116	9, 136	125	8, 413	1, 885	1, 278
Tinplate, terneplate, etc ... do	12, 986	69, 499	47, 299	56, 266	441	3, 554	2, 362	2, 812
Colors, dyes, stains (coal tar) ... do	--------	9, 606	18, 304	15, 174	--------	2, 229	3, 300	1, 913
Imports					**38, 475**	**136, 820**	**190, 255**	**157, 905**
Goat and kid skins ... pounds	9, 402	6, 574	9, 543	12, 645	2, 613	2, 814	4, 333	6, 092
Furs, undressed ... number	--------	8, 594	10, 157	--------	133	10, 859	15, 557	15, 164
Plates and mats of dog and goat skins ... number	--------	1, 201	1, 921	825	--------	2, 667	5, 766	1, 896
Chinese wood oil ... gallons	[1] 5, 903	80, 530	100, 910	82, 796	[1] 2, 684	10, 956	11, 303	9, 129
Tea ... pounds	23, 439	12, 500	12, 719	13, 259	2, 976	2, 445	2, 791	3, 295
Cotton, unmanufactured ... do	8, 156	22, 175	18, 705	10, 931	925	4, 503	4, 379	2, 275
Cotton laces, handmade ... do	--------	174	175	--------	(2)	1, 814	1, 461	808
Materials for hats, bonnets of straw, etc ... yards	--------	427, 281	232, 021	480, 640	1, 299	2, 066	786	1, 106
Carpet wool ... pounds	32, 806	65, 700	64, 233	22, 871	4, 068	14, 337	17, 713	5, 906
Carpets ... square yards	6	713	685	671	28	4, 591	5, 410	5, 485
Silk, raw ... pounds	5, 145	5, 430	11, 211	10, 535	12, 878	31, 185	60, 227	51, 344
Bristles, sorted, bunched, etc ... do	1, 569	3, 343	3, 162	3, 803	910	5, 863	4, 942	4, 684

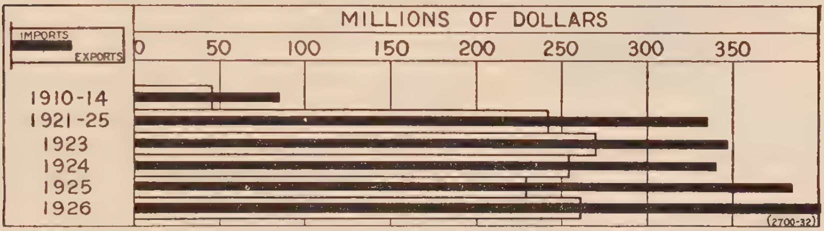
[1] 1913 only.

[2] Less than $500.

JAPAN

Exports to Japan showed a very substantial gain in 1926 and there was a more moderate increase in imports. The export trade increased in value from $230,000,000 to $261,000,000 in spite of a decrease in the total value of cotton exports. Wheat exports were over twice as high in value as in 1925 and there were also large increases in exports of mineral oil, iron and steel products, and sulphate of ammonia.

Chart XL.—TRADE OF THE UNITED STATES WITH JAPAN



Imports from Japan, which were valued at over $400,000,000 in 1926, were 4 per cent greater than in 1925. Most of this gain resulted from larger imports of raw silk, but there were also increased imports of silk fabrics, decorated china, crab meat, and tea.

Table 54.—Principal Commodities in Trade of the United States with Japan

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**45, 290**	**253, 009**	**229, 642**	**260, 754**
Wheat, grain ... bushels	2, 338	7, 298	3, 673	8, 006	1, 994	9, 118	5, 441	11, 040
Tobacco, leaf ... pounds	2, 997	11, 921	7, 793	7, 233	440	5, 087	3, 299	2, 379
Cotton, unmanufactured ... bales	283	675	1, 003	1, 251	18, 548	94, 502	120, 888	107, 860
Boards, etc., Douglas fir ... board feet	[1] 14, 312	245, 113	148, 173	176, 798	[1] 197	6, 303	3, 153	3, 760
Gasoline and naphtha ... gallons	467	10, 390	9, 855	20, 704	68	2, 644	2, 355	3, 802
Illuminating oil ... do	85, 652	33, 763	62, 595	102, 537	4, 659	4, 638	8, 580	13, 690
Gas and fuel oil ... do		145, 735	66, 560	90, 242		4, 955	2, 220	2, 214
Lubricating oil ... do	3, 133	10, 987	8, 081	8, 488	553	3, 428	2, 367	2, 413
Iron or steel sheets, galvanized ... pounds	[1] 12, 984	34, 370	8, 922	12, 450	[1] 393	1, 608	353	477
Steel sheets, black ... do		227, 630	83, 960	198, 906		8, 969	3, 107	6, 983
Tin and terneplates ... do	2, 858	120, 931	86, 857	109, 903	100	6, 789	4, 356	5, 629
Copper (ingots, bars) ... do	1	19, 060	8, 494	37, 344	1	2, 558	1, 181	5, 279
Automobiles, motor trucks ... number [2]	[1] 21	3, 053	69	167	[1] 33	1, 769	109	292
Automobiles, passenger ... do.[2]	[1] 312	4, 312	1, 111	1, 642	[1] 365	2, 830	1, 156	1, 600
Sulphate of ammonia ... tons		32	52	67		1, 989	2, 968	3, 590
Imports					**84, 999**	**340, 095**	**384, 156**	**400, 693**
Tea ... pounds	46, 245	28, 612	29, 582	28, 292	7, 957	6, 207	6, 456	6, 898
Materials for hats, bonnets of straw, etc ... yards		572, 148	545, 384	692, 611	2, 077	1, 560	1, 530	1, 927
Silk, raw ... pounds	15, 592	44, 307	49, 685	53, 793	52, 641	285, 923	317, 753	328, 903
Silk, fabrics ... do		1, 492	1, 646	2, 248	2, 172	8, 456	7, 638	10, 029
Decorated china ... do		18, 698	20, 407		1, 236	2, 894	2, 940	4, 388

[1] 1913 only.

[2] Full number (000 not omitted).

AUSTRALIA

Exports to Australia increased 14 per cent in 1926, whereas our imports from that country were 17 per cent less than in 1925. The expansion of the export trade from $148,500,000 to $168,700,000 resulted from larger shipments of automobile trucks, machinery, iron and steel products, rubber manufactures, silk hosiery, and many miscellaneous manufactures. Imports declined from $55,100,000 to $45,700,000 as a result of a decline of one-third in the total value of wool imported.

Chart XLI.—TRADE OF THE UNITED STATES WITH AUSTRALIA

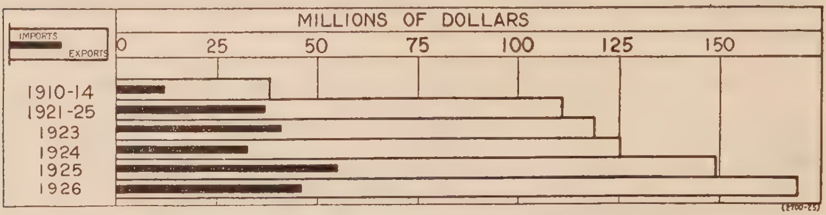


Table 55.—Principal Commodities in Trade of the United States with Australia

Commodity	Quantity (000 omitted)				Value (thousands of dollars)			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Exports					**38,722**	**125,178**	**148,524**	**168,695**
Tobacco, leaf .... pounds	13,965	20,652	22,577	23,356	2,180	7,707	8,333	8,895
Timber, sawed, Douglas fir .... board feet		78,576	65,648	113,082		1,918	1,443	2,391
Boards, etc.:								
Douglas fir .... do	[1] 188,550	74,929	107,170	87,825	[1] 2,291	1,856	2,558	2,039
Redwood .... do	[1] 46,739	26,741	38,856	32,802	[1] 1,213	1,974	2,858	1,911
Gasoline and naphtha .... gallons	5,577	52,704	64,743	81,329	967	12,703	16,428	16,929
Illuminating oil .... do	22,807	23,423	23,962	24,002	2,447	3,584	3,723	4,039
Lubricating oil .... do	4,114	11,233	11,376	15,069	613	3,637	3,673	5,019
Wheel tractors .... number [2]		3,997	3,915	4,662		2,749	2,552	2,840
Automobiles, passenger .... do.[2]	[1] 2,083	39,564	48,357	48,960	[1] 1,897	27,030	34,336	33,999
Automobiles, motor trucks .... do.[2]	[1] 17	2,958	7,574	15,150	[1] 23	3,789	5,954	10,330
Parts of automobiles .... pounds		6,399	6,871		109	2,776	2,703	3,116
Pianos, players and others .... number [2]	472	7,498	8,811	11,540	78	2,143	2,359	3,019
Imports					**12,312**	**32,868**	**55,110**	**45,739**
Furs, undressed .... number		32,339	49,584		650	5,765	10,657	11,829
Clothing wool .... pounds	17,221	911	3,030	3,726	4,370	541	1,528	1,657
Combing wool .... do	47	34,337	52,624	47,462	8	19,964	34,391	22,889

[1] 1913 only.

[2] Full number (000 not omitted).

NEW ZEALAND

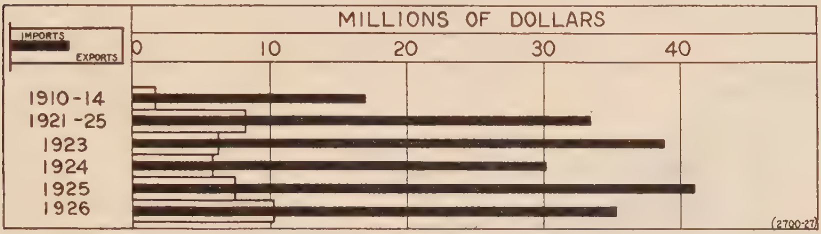
Exports to New Zealand increased 8.4 per cent in 1926 as a result of larger shipments of mineral oil, passenger automobiles, trucks, and iron and steel maufactures. The value of exports of rubber manufactures, however, was only about one-half as great as in the preceding year. Imports decreased 4.6 per cent in consequence of declines in hides and skins, furs, and butter. Imports of wool were about 73 per cent greater in quantity, but were only slightly higher in value than in 1925.

TRADE WITH AFRICA

MEDITERRANEAN AFRICA

Exports to Mediterranean Africa reached an aggregate of $23,700,000 in 1926 as compared with $18,200,000 in 1925, which resulted from larger shipments to all countries in the region except Morocco. Exports of coal to Egypt were over nine times as large as in 1925 as a consequence of the temporary cessation of shipments from England, and there were also substantial increases in exports of flour, automobiles, and tin plate. The principal exports to French North Africa are mineral oil and leaf tobacco.

Chart XLII.—TRADE OF THE UNITED STATES WITH EGYPT



Imports totaled $39,400,000 last year, a decrease of 12 per cent. This decrease was owing almost entirely to the low price of Egyptian cotton. Imports of cotton were 10 per cent greater in quantity but over $5,000,000 less in value. The other leading imports from Mediterranean Africa are cork, iron ore, and olive oil.

Table 56.—Trade with Africa, by Commercial Regions and Countries

NOTE.—Values in millions and tenths of millions of dollars; i. e., 00,000 omitted. Several minor countries are not listed separately but included in the totals.

Region and country	Exports						Imports					
	1910–1914	1921–1925	1923	1924	1925	1926	1910–1914	1921–1925	1923	1924	1925	1926
Africa, total	24.6	69.7	60.7	70.3	89.1	101.1	22.6	71.5	87.1	73.0	92.1	96.4
Mediterranean	4.9	20.8	16.4	15.6	18.2	23.7	18.1	36.2	41.9	32.7	45.0	39.4
Egypt	1.7	8.2	6.2	5.9	7.4	10.3	16.9	33.5	38.8	30.1	41.0	35.2
Algeria and Tunis	[1] 2.4	7.3	5.6	5.5	5.7	6.7	[1] .7	2.1	2.4	2.0	2.9	3.2
Canary Islands	.8	2.1	1.9	2.0	2.0	3.8	.1	.2	.2	.2	.3	.5
Morocco	.1	2.4	2.1	1.6	2.4	2.3	.2	.4	.4	.5	.7	.5
Other Africa	19.7	48.9	44.3	54.7	70.9	77.4	4.5	35.3	45.2	40.3	47.1	57.0
Belgian Kongo	(2)	.5	.3	.5	.8	1.2	(2)	.9	1.0	1.2	1.8	1.7
British Africa—												
West	3.2	7.8	8.1	8.0	10.7	9.9	.7	12.8	17.5	12.2	17.3	19.8
South	12.9	31.4	28.4	36.0	46.2	51.1	2.5	9.3	13.4	7.7	9.2	19.8
East	.7	2.3	1.5	2.6	3.8	4.0	.9	1.8	1.6	1.7	3.3	2.3
Madagascar	(2)	.1	.1	.1	.2	.3	(2)	.2	.2	.2	.5	.3
French Africa, n. e. s.	(1)	[3] 2.4	1.9	2.6	3.3	4.1	(1)	[3] .8	.5	.9	1.3	1.2
Portuguese Africa	2.8	4.7	3.9	4.6	5.6	6.5	.3	9.6	11.0	16.3	13.5	11.7

[1] Algeria and Tunis includes French Africa, n. e. s.

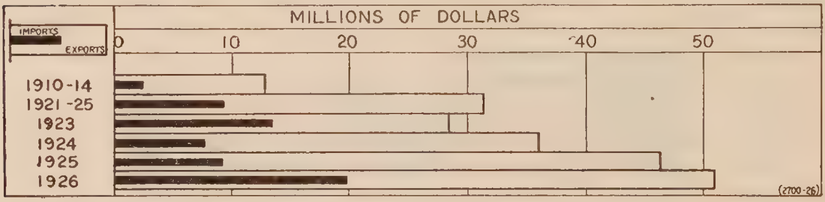
[2] Less than $50,000.

[3] Four-year average, 1922–1925.

AFRICA OTHER THAN MEDITERRANEAN

In spite of the immense area of Africa outside of the Mediterranean region, trade is relatively small, as the land is for the most part thinly populated by races little advanced in productive capacity and requirements. The trade, however, has been expanding rapidly for a number of years, and both exports and imports reached a record volume in 1926. Exports are valued at $77,400,000, an increase of 9.2 per cent. About two-thirds of this trade is with British South Africa and consists principally of automobiles, mineral oils, cotton cloth, and other manufactures. Exports of automobiles and mineral oils were both substantially larger in quantity during the past year.

Chart XLIII.—TRADE OF THE UNITED STATES WITH BRITISH SOUTH AFRICA



Imports increased in value one-fifth during 1926, amounting to $57,000,000. Trade with British South Africa more than doubled as a result of larger purchases of wool and of copper. The copper was actually mined in countries further north, but was exported through South African ports. Trade with British West Africa, which consists chiefly of cocoa and palm oil also showed a substantial gain.

AGRICULTURAL PRODUCTS AND FOODSTUFFS

AGRICULTURAL PRODUCTS IN GENERAL

SUMMARY.—The total acreage planted to crops has varied comparatively little during the past eight years. It was smallest in 1924, but increased about 2 per cent during the next two years and in 1926 was larger than in any year since 1919. There was also a 2 per cent increase in the general mass of crop production during 1926. The most significant change in acreage of any important crop during the past year was the increase of 8.2 per cent for wheat. Both the acreage and the yield per acre of wheat were larger than in 1925, with the result that the wheat crop increased 23 per cent. The acreage and the yield per acre of cotton were also larger in 1926 than in 1925, with the result that the cotton crop increased 10 per cent and was the largest on record. Both the acreage and the yield per acre of corn were low in 1926, resulting in an unusually small crop.

The general weighted index of prices of farm products on the farm for the year 1926 as a whole averaged 7½ per cent lower than for 1925, and closed the year 11 per cent lower than in December, 1925. The index of wholesale prices of farm products in central markets showed a greater decrease over 1925 for the year as a whole than did the index for farm prices. Both indexes decreased in about the same proportion during the year 1926. For 1926 the spread between the wholesale price index of domestic farm and food products and the wholesale price index for nonagricultural commodities was twice as great as in 1925. Marked differences in farm price movement appeared as among individual farm products. Fruits and vegetables and meat animals for the calendar year 1926 averaged higher than in 1925, while cotton and cottonseed, grains, dairy and poultry products, and miscellaneous products were lower. The prices of cotton and cottonseed had a drastic decline in the latter part of 1926, with the result that the value of the 1926 cotton crop was 31 per cent less than that of the 1925 crop, in spite of the fact that the production in 1926 was 9.7 per cent greater than in 1925.

Table 1.—Summary of Agricultural Products

Item	1919	1921	1922	1923	1924	1925	1926
Acreage, 19 principal crops (thousands)	351, 294	345, 893	347, 616	349, 428	342, 155	346, 690	349, 659
Acreage, 7 principal cereals (thousands)	228, 013	226, 474	221, 761	219, 604	208, 178	212, 184	213, 850
Value of agricultural exports (millions of dollars)[1]	4, 112	2, 116	1, 885	1, 821	2, 110	2, 135	1, 815
Value per acre of 10 leading crops (dollars)	35. 74	14. 45	19. 23	21. 52	23. 88	22. 17	19. 07
Index of crop yields[2]	99. 8	91. 7	96. 7	96. 1	98. 1	99. 6	104. 6
Index of farm prices (1909–1913=100)	209	116	124	135	134	147	136
Indexes (1919=100):							
Acreage of 19 crops	100	98. 5	99. 0	99. 5	97. 4	98. 7	99. 5
Acreage of 7 principal cereals	100	99. 3	97. 3	96. 3	91. 3	93. 1	93. 8
Mass of crop production	100	93	102	102	103	104	106

[1] These figures are for the year ending Dec. 31, and exclude forest products.

[2] Based on 10-year moving average; that is, each year is expressed as a percentage of the average for the 10 preceding years, weighted according to crop values in 1919.

At the close of the year the farm price of wheat was 40 per cent and that of corn 14 per cent above the pre-war average, while cotton was 13 per cent below the pre-war figure. The farm prices of the principal kinds of livestock, except sheep, increased a little in 1926 as compared with 1925 and, except for lambs and sheep, were slightly higher in December than a year earlier. Sugar prices, which have been at a very low level for two years, advanced in the latter part of 1926.

Revised indexes of quantity and price of exports of agricultural products show that in 1926 such exports were 75 per cent greater in value than in 1910–1914 as a result of an average increase of 20 per cent in quantity and of 47 per cent in price. Between 1925 and 1926 the quantity increased 4 per cent and the price decreased 18 per cent. There was a reduction between 1925 and 1926 in the quantity of exports of animal and dairy products and an increase in the quantity of exports of grains, vegetables, fruits and nuts, and cotton.

RECENT MOVEMENTS OF ACREAGE AND PRODUCTION

Statistics of production of agricultural products have very different significance from those for manufactured, mineral, and forest products. In the latter industries large production is normally a sign of prosperity for producers. The producer has it largely in his power to change the volume of output in accordance with demand. In consequence large production and relatively high prices are likely to go together, and low production and low prices together. In agriculture the adjustment of production to demand is much more difficult and slow. The farmer must produce to meet a demand which may be determined many months or (in the case of animal products) even two or three years later. Moreover, the greater part of the work on farms, especially crop planting, is performed by the owners themselves, so that production can not be much diminished by laying off employees. Finally, crop output is greatly affected by weather conditions outside the control of the producer. It often happens, therefore, that production and prices move by no means in parallel; a large crop may bring less total receipts than a smaller one.

The individual farmer, and still more farmers as a group, normally vary the total acreage planted but little from year to year. They may make considerable adjustments in the relative area devoted to different crops, but even such changes are often limited by characteristics of the soil and other physical conditions.

Aggregate Acreage, Production, and Value of Crops.

The total acreage planted to crops has declined slightly since the end of the World War, during which it had been abnormally stimulated. The decrease has been chiefly in wheat and rye. According to the agricultural census of 1924, the area in principal crops (a figure on a different basis from the Department of Agriculture estimates in Table 4) was 338,516,000 acres, as compared with 348,552,000 acres in 1919. According to the estimates of the Department of Agriculture, there was an increase in total acreage in each of the last two years, and the 1926 acreage was larger than in any year since 1919.

Changes from one year to the next in aggregate production of all crops combined, for the country as a whole, are usually small, favorable conditions in one region or for one crop being largely offset by unfavorable conditions for other regions or other crops. The measurement of changes in the "mass of crop production" is made by applying constant prices to the quantities produced in different years and comparing the aggregate values thus ascertained. According to this index, there has been a slow but steady gain in total production during the past five years, the index (based on the average of 1910–1914 as 100) standing at 114 in 1926, 112 in 1925, 111 in 1924, and 110 in each of the two preceding years. No official calculation is made of quantitative changes in the production of animal products as a group.

According to the estimates of the Department of Agriculture, the total value of farm crops in 1925 (the latest year for which data are available) was $10,270,000,000, a decrease of 4.7 per cent as compared with 1924, and the total value of animal products was $6,694,000,000, an increase of 13.4 per cent. The net total value of all farm products, after excluding duplication owing to the feeding of crops to livestock, was estimated at $13,031,000,000, an increase of 6.6 per cent as compared with the preceding year. Comparisons of the values of crops and of animal products over a long series of years are shown in Table 3.

Table 2.—Gross Value of Farm Products—Department of Agriculture Estimates

[Value in millions of dollars]

Product	Value			Per cent distribution, 1925	Product	Value			Per cent distribution, 1925
	1923	1924	1925			1923	1924	1925	
Total crops	**10,401**	**10,770**	**10,269**	**100.0**	**Total animal products**	**6,271**	**5,902**	**6,694**	**100.0**
Cereals	4,138	4,669	4,056	39.5					
Cotton	1,657	1,766	1,656	16.2	Animals raised	2,477	2,243	2,716	40.6
Flax, fiber and seed	37	74	50	.5	Bee products	12	12	12	.2
Fruits	642	614	657	6.4	Dairy products	2,652	2,586	2,747	41.0
Hay and forage	1,619	1,674	1,514	14.7	Poultry products	1,039	968	1,117	16.6
Legume seeds	172	153	149	1.5	Wool	87	89	98	1.5
Seeds for planting	46	26	24	.2	Other animal products	4	4	4	.1
Sugar crops	153	150	138	1.3					
Tobacco	311	244	250	2.4					
Vegetables	1,169	963	1,311	12.8	**Net total, all products**	**12,382**	**12,219**	**13,031**	-------
Farm-forest products	318	306	327	3.2					
Other crops	139	131	137	1.3					

Source: Bureau of Agricultural Economics, Department of Agriculture.

Principal Individual Crops.

Of the five principal crops, the acreage of wheat, cotton, and potatoes increased in 1926 compared with 1925 while the acreage of corn and hay decreased. The most marked changes in acreage were the increase of 14.5 per cent in rice and the declines of 11.6 and 11.1

per cent in rye and peanuts, respectively. The acreage of cotton was the highest ever recorded, showing an increase of 3.5 per cent over 1925. The acreages of rye, corn, and hay, on the other hand, were lower than in any other recent year.

Chart I.—ACREAGE OF FIVE PRINCIPAL CROPS

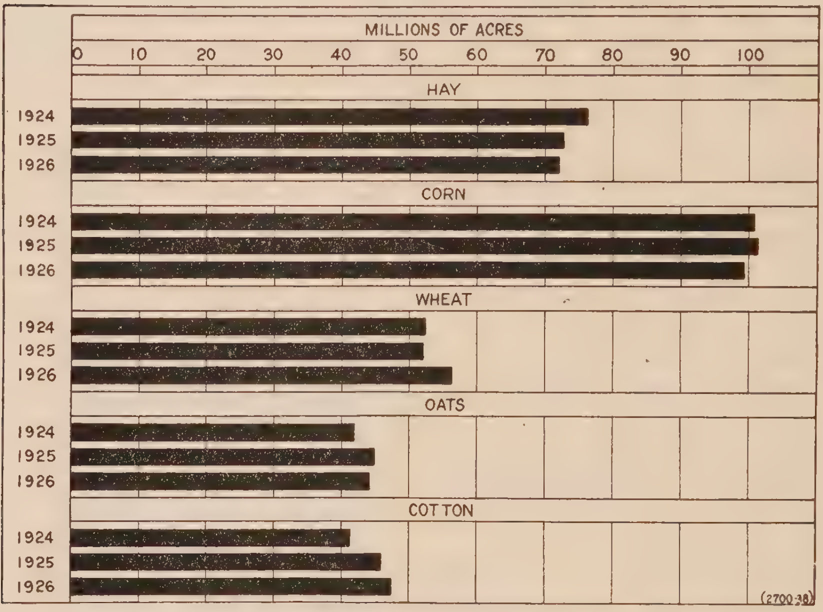


Table 3.—Estimated Value of Farm Products

NOTE.—Values 1877 to 1908 are based on farm prices December 1, while those for 1909 to date are obtained by multiplying crop and animal production by weighted prices for the crop year. Beginning with 1919, a number of items, which previously had not been included in making these estimates were added.

[In millions of dollars]

Year	Crops	Animal products	Crops fed to livestock	Total, excluding crops fed to livestock	Year	Crops	Animal products	Crops fed to livestock	Total, excluding crops fed to livestock
1897	2,519	1,442	1,057	2,904	1912	6,799	3,778	3,110	7,467
1898 (census)	2,760	1,579	1,178	3,161	1913	6,717	4,099	2,930	7,886
1899	3,020	1,718	1,383	3,355	1914	7,268	4,249	3,352	8,165
1900	3,192	1,818	1,461	3,549	1915	7,957	4,303	3,622	8,638
1901	3,385	1,917	1,659	3,643	1916	10,305	4,862	4,808	10,359
1902	3,578	2,016	1,787	3,807	1917	14,277	6,539	6,867	13,949
1903	3,772	2,116	1,752	4,136	1918	14,814	8,082	6,392	16,504
1904	3,982	2,140	1,860	4,262	1919	16,561	8,275	7,159	17,677
1905	4,013	2,261	1,887	4,387	1920	11,578	7,709	4,476	14,811
1906	4,263	2,501	1,980	4,784	1921	7,759	5,589	3,080	10,268
1907	4,761	2,727	2,293	5,195	1922	9,430	5,651	3,870	11,211
1908	5,098	2,792	2,426	5,464	1923	10,401	6,271	4,290	12,382
1909	5,483	3,398	2,409	6,472	1924	10,770	5,902	4,453	12,219
1910	6,211	3,743	2,762	7,192	1925	10,269	6,694	3,932	13,031
1911	6,495	3,485	2,988	6,992					

Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 4.—Acreage, Production, and Value of Major Crops (Department of Agriculture Estimates)

NOTE.—*All figures in thousands* of units specified except yield per acre. The figures for 1924 in this table differ appreciably for some crops from the census figures in Table 9.

Year	Acres	Production	Yield per acre	Value[1]	Acres	Production	Yield per acre	Value[1]
	Corn (bushels)				Wheat (bushels)			
1920	101,699	3,208,584	31.5	2,150,332	61,143	833,027	13.6	1,197,263
1921	103,740	3,068,569	29.6	1,297,213	63,696	814,905	12.8	754,834
1922	102,846	2,906,020	28.3	1,910,775	62,317	867,598	13.9	873,412
1923	104,324	3,053,557	29.3	2,217,229	59,659	797,394	13.4	736,006
1924	100,863	2,309,414	22.9	2,266,771	52,535	864,428	16.5	1,123,086
1925	101,359	2,916,961	28.8	1,966,761	52,255	676,429	12.9	957,907
1926	99,492	2,645,031	26.6	1,703,430	56,526	832,305	14.7	997,589
	Oats (bushels)				Barley (bushels)			
1920	42,491	1,496,281	35.2	688,311	7,600	189,332	24.9	135,083
1921	45,495	1,078,341	23.7	325,954	7,414	154,946	20.9	64,934
1922	40,790	1,215,803	29.8	478,948	7,317	182,068	24.9	95,560
1923	40,981	1,305,883	31.9	541,137	7,835	197,691	25.2	107,038
1924	42,110	1,502,529	35.7	717,189	6,925	181,575	26.2	134,590
1925	44,872	1,487,550	33.2	565,506	8,088	216,554	26.8	127,453
1926	44,394	1,253,739	28.2	499,531	8,200	191,182	23.3	109,677
	Rye (bushels)				Potatoes (bushels)			
1920	4,409	60,490	13.7	76,693	3,657	403,296	110.3	461,778
1921	4,528	61,675	13.6	43,014	3,941	361,659	91.8	398,362
1922	6,672	103,362	15.5	70,841	4,307	453,396	105.3	263,355
1923	5,171	63,077	12.2	40,971	3,816	416,105	109.0	324,889
1924	4,150	65,466	15.8	69,696	3,327	421,585	126.7	263,312
1925	3,974	46,456	11.7	36,340	3,092	323,465	104.6	604,072
1926	3,513	40,024	11.4	33,416	3,151	356,360	113.1	504,993
	Cotton (bales of 500 pounds gross)				Tobacco (pounds)			
1920	35,878	13,440	[2] 178.4	933,658	1,960	1,582,225	807.3	335,675
1921	30,509	7,954	[2] 124.5	643,933	1,427	1,069,693	749.6	212,728
1922	33,036	9,762	[2] 141.3	1,160,968	1,695	1,246,837	735.6	289,248
1923	37,123	10,140	[2] 130.6	1,571,823	1,877	1,515,110	807.2	301,096
1924	41,360	13,628	[2] 157.4	1,540,884	1,706	1,251,343	733.6	259,139
1925	46,053	16,104	[2] 167.2	1,464,032	1,757	1,376,628	783.3	250,774
1926	47,653	17,911	[2] 181.9	1,016,346	1,665	1,323,388	795.0	245,175
	Flaxseed (bushels)				All hay (short tons)			
1920	1,757	10,752	6.1	18,999	73,888	107,245	1.45	1,783,470
1921	1,108	8,029	7.2	11,648	74,401	97,849	1.32	1,100,060
1922	1,113	10,375	9.3	21,941	77,030	111,879	1.45	1,317,239
1923	2,014	17,060	8.5	35,951	75,424	106,611	1.41	1,398,220
1924	3,469	31,547	9.1	71,728	76,352	112,481	1.47	1,460,430
1925	3,078	22,424	7.3	50,783	72,791	98,441	1.35	1,303,618
1926	2,897	19,459	6.7	37,775	72,346	96,362	1.33	1,317,207

[1] Based on Dec. 1 prices.

[2] Pounds per acre.

Source: Bureau of Agricultural Economics, Department of Agriculture.

The yields per acre of the various crops in 1926 show considerable divergencies in their comparison with 1925. The 1926 cotton yield per acre was the largest since 1914 and the yield of potatoes was the third largest on record, being exceeded only in 1924 and 1912. The 1926 yield of oats was smaller than in any year since 1921 and that of rye since 1887. The 1926 total hay yield was practically the same as the 1921 yield, which was the smallest on record. The largest increases in yields were shown by sweet potatoes and grain sorghums, which amounted to 26 per cent and 24.6 per cent, respectively. The greatest decreases were for beans and oats, 16.9 per cent and 15.1 per cent, respectively.

As a consequence of these changes in acreage and in yield per acre, several marked changes occurred in crop production. With both the acreage and the yield per acre of cotton higher than in any of the five previous years, the production of cotton in 1926 was much the largest of any year on record. On the other hand, rye, with both the smallest acreage and the smallest yield per acre of any recent year, showed in 1926 a much smaller production than in any year since 1912. Hay production was also smaller than for a number of years. On account of a great decrease in acreage, the production of potatoes in 1926 was smaller than in any recent year except 1925, in spite of the fact that the yield per acre of potatoes in 1926 was comparatively high.

Production both of wheat and of rice was 23 per cent greater in 1926 than in 1925, while production of sweet potatoes and of grain sorghums was 34 per cent greater. The output of the other leading crops decreased in 1926 as compared with 1925.

The general decline in the value of crops, which began in 1925, continued in 1926. The crop values in Tables 4 and 5 are calculated on the basis of December 1 prices. Each of the important crops except wheat, hay, and peanuts declined in value in 1926 compared with 1925. The cotton crop showed a decrease in total value of 31 per cent, despite the record production.

Table 5.—Acreage, Production, and Value of Other Crops (Department of Agriculture Estimates)

[Acreage, production, and value in thousands]

Crop	1924	1925	1926	Crop	1924	1925	1926
Rice:				Sweet potatoes:			
Acreage	850	889	1,018	Acres	688	779	830
Production (bu.)	32,498	33,309	41,006	Production (bu.)	53,912	62,319	83,658
Yield per acre (bu.)	38.2	37.5	40.3	Yield per acre (bu.)	78.4	80.0	100.8
Value [1]	45,009	51,232	44,988	Value [1]	69,444	85,034	80,075
Buckwheat:				Peanuts:			
Acres	745	747	707	Acres	1,187	958	852
Production (bu.)	13,357	13,994	12,922	Production (lbs.)	745,059	698,475	626,866
Yield per acre (bu.)	17.9	18.7	18.3	Yield per acre (lbs.)	627.7	729.1	735.8
Value [1]	13,708	12,423	11,408	Value [1]	34,259	25,390	28,214
Grain sorghums: [2]				Beans, dry, edible: [2]			
Acres	3,813	4,120	4,410	Acres	1,576	1,606	1,659
Production (bu.)	80,443	75,230	100,710	Production (bu.)	15,164	19,928	17,138
Yield per acre (bu.)	21.1	18.3	22.8	Yield per acre (bu.)	9.6	12.4	10.3
Value [1]	68,501	56,769	54,873	Value [1]	56,744	65,376	50,228
Cottonseed: [3]							
Production (tons)	6,051	7,150	8,267				
Value [1]	195,951	194,970	154,089				

[1] Based on Dec. 1 prices.

[2] For principal producing States only.

[3] Acreage same as for cotton; see Table 4.

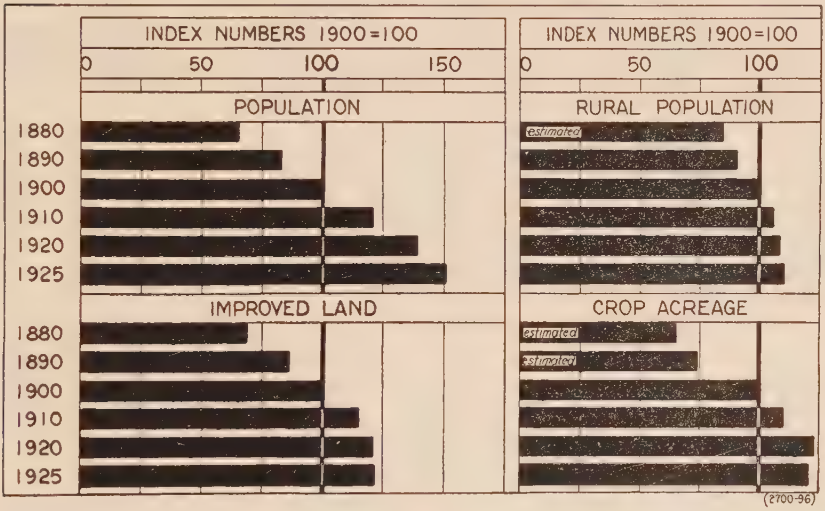
Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 6.—Per Cent Change, 1926 from 1925, in Acreage, Production, and Value of Crops

Crop	Acreage	Production	Value	Crop	Acreage	Production	Value
Corn	−1.8	−9.3	−13.4	Cottonseed		+15.6	−21.0
Wheat	+8.2	+23.0	+4.1	Potatoes	+1.9	+10.2	−16.4
Oats	−1.1	−15.7	−11.7	Sweet potatoes	+6.5	+34.2	−5.8
Barley	+1.4	−11.7	−13.9	Flaxseed	−5.9	−13.2	−25.6
Rye	−11.6	−13.8	−8.0	Tobacco	−5.2	−3.9	−2.2
Rice	+14.5	+23.1	−12.2	Peanuts	−11.1	−10.3	+11.1
Hay (all)	−.6	−2.1	+1.0	Beans, dry, edible	+3.3	−14.0	−23.2
Cotton	+3.5	+11.2	−30.6	Grain sorghums	+7.0	+33.9	−3.3

Source: Computed from Tables 4 and 5.

Chart II.—POPULATION: RURAL POPULATION, IMPROVED LAND, AND CROP ACREAGE



THE LONGER SWING OF FARM PRODUCTION

Comparative Growth of Population and Agriculture.

Agricultural industry expanded about as fast as the population increased down to 1890. (Table 7.) For the next 30 years the growth of agriculture hardly kept pace with that of population and in recent years there has been an actual decrease in the extent of agricultural operations. The rate of increase in the agricultural population throughout our entire history has been materially less than that of the total population and for the last 15 or 20 years the number of people on the farms has been practically stationary. Wider use of machinery and advances in efficiency, however, have enabled the farm population to expand materially its production per capita. The area of improved land per capita of the total population of the country was appreciably greater in 1880 and in 1890 (5.7 acres in each of these years) than at the earlier censuses but it has since shown a decided falling off, being 4.4 acres in 1925.

Census figures for total area in harvested crops are available only since 1899. As against a gain of 21 per cent in population from 1900 to 1910, the acreage in crops (orchards and a few minor crops not included) increased 10 per cent; during the next decade the corresponding increases were 15 and 12 per cent, respectively. The acreage of harvested crops as reported by the census (counting in 1924 only those included in 1919) was 2.9 per cent less in 1924 than in 1919, the acreage of cereals having fallen no less than 14.5 per cent. (Table 9.)

Table 7.—Comparative Growth of Population and Agriculture

NOTE.—"Rural Population" is that outside incorporated places or certain New England towns; while the "Rural Population" generally shown by the Census includes incorporated places of less than 2,500 inhabitants.

Census year	Population (thousands)			Area (thousands of acres)				Number of farms (thousands)	Average acres per farm
	Total	Rural	Per cent rural	All farm land	Improved land	Harvested crops [1]	Cereals [2]		
1850	23,192			293,561	113,033			1,449	202.6
1860	31,443			407,213	163,111			2,044	199.2
1870	[3] 38,558			407,735	188,921			2,660	153.3
1880	50,156	[4] 32,950	65.0	536,082	284,771		118,806	4,009	133.7
1890	62,948	35,891	57.0	623,219	357,617		140,379	4,565	136.5
1900	75,995	39,313	51.7	838,592	414,498	283,149	184,982	5,737	146.2
1910	91,972	41,637	45.3	878,798	478,452	311,195	191,396	6,362	138.1
1920	105,711	42,437	40.1	955,884	503,073	348,552	219,031	6,448	148.2
1925	[4] 115,378	43,000	37.3	924,319	[5] 505,027	[6] 344,549	[7] 186,338	6,372	145.1

Census year	Percentage of increase over preceding census					Acres per capita of total population			Percentage of total area of United States in—		Percentage of farm land improved
	Population	Rural population	Improved land	Acreage in crops	Acreage in cereals	Improved land	Harvested crops	Cereals	Farm land	Improved land	
1850						4.87			15.6	6.0	38.5
1860	35.6		44.3			5.19			21.4	8.6	40.1
1870	[3] 22.6		15.8			4.90			21.4	9.9	46.3
1880	30.1		50.7			5.68		2.37	28.2	15.0	53.1
1890	25.5	9.5	25.6		18.2	5.68		2.23	32.7	18.8	57.4
1900	20.7	9.5	15.9		31.8	5.45	3.73	2.43	44.1	21.8	49.4
1910	21.0	5.9	15.4	9.9	3.5	5.20	3.38	2.08	46.2	25.1	54.4
1920	14.9	1.9	5.1	12.0	14.4	4.76	3.30	2.07	50.2	26.4	52.6
1925	9.1	1.3	.4	−1.1	−14.5	4.38	2.99	1.62	48.6	26.5	54.6

[1] Data relate to preceding year; a few minor crops are not covered.
[2] Data relate to preceding year.
[3] It is generally considered that the census of 1870 understated the population in the South. Other data may also have been understated.
[4] Estimated.
[5] Not strictly comparable with earlier years, based on new form of questions.
[6] Includes acreage in fruits and nuts and sundry minor crops, which is not shown in Table 9.
[7] Emmer and spelt and mixed crops excluded. See note 3, Table 9.

Source: Bureau of the Census.

The average size of farms has shown no great change in recent decades. The breaking up of large ranches in the West has been offset by some increase in the prevailing size of farms in the States of longer settlement.

The value of farm property between 1900 and 1910 more than doubled and during the next 10 years it nearly doubled again, the cause lying partly in the expansion of the agricultural area and equipment, partly in the rise of the general price level of commodities, and partly in speculative anticipation of further advances in prices of farm products. The sharp fall in prices of agricultural products following 1920 resulted in a great decline in the values of farm property. Land and buildings had been valued at $66,300,000,000 in 1920, but fell to $49,500,000,000 in 1925. The average value of farm land per acre for the country as a whole was more than $69 in 1920 and about $53.50 in 1925.

Farm Tenure.

The relative growth of farm tenancy is shown in Table 8. The percentage of tenants rose from 35.3 in 1900 to 38.7 in 1925. Somewhat more than one-fourth of the total farm acreage and about one-third of the improved farm land is operated by tenants. A large proportion of the tenant farmers are young men, often sons or sons-in-law of the owners, and the very great majority of all older farmers own their land.

Table 8.—Farm Tenure

Item	Farms operated by owners and managers [1]				Farms operated by tenants			
	1900	1910	1920	1925	1900	1910	1920	1925
Number of farms	3, 712, 408	4, 006, 826	3, 993, 539	3, 909, 031	2, 024, 964	2, 354, 676	2, 454, 804	2, 462, 609
Per cent of all farms	64. 7	63. 0	61. 9	61. 4	35. 3	37. 0	38. 1	38. 7
Acreage:								
All land (thousands of acres)	643, 558	652, 285	690, 904	659, 213, 465	195, 034	226, 513	264, 980	265, 105, 887
Per cent distribution	76. 7	74. 2	72. 3	71. 3	23. 3	25. 8	27. 7	28. 7
Improved land (thousands of acres)	289, 141	322, 164	327, 318	(2)	125, 358	156, 287	175, 755	(2)
Per cent distribution	69. 8	67. 3	65. 1	(2)	30. 2	32. 7	34. 9	(2)

[1] Acreage includes any additional land rented by a farm owner. Farms operated by managers are only (1925) about 1 per cent of all farms, but occupy 4.7 per cent of total acreage and that of improved acreage in 1920 was 2.6 per cent (1925 not reported).

[2] Not available.

Source: Bureau of the Census.

Acreage and Production of Crops, 1889 to 1924.

For long-term comparison of crop changes the decennial censuses furnish the most accurate basis. (Tables 9 and 10.) The census figures for individual crops, however, are more satisfactory as an indication of tendencies in acreage than in production, since weather conditions in a given census year may be unusually favorable or otherwise, resulting in considerable variation from normal yield. Cereals occupied a decidedly smaller proportion of the total area in crops in 1924 than at any previous census, the absolute total for cereals being but little greater than in 1899. The area in hay and forage has risen quite steadily. Cotton acreage increased rapidly down to 1909 but, owing to the ravages of the boll weevil, remained substantially stationary for some time thereafter; in recent years it has again risen rapidly.

Chart III.—ACREAGE OF PRINCIPAL CROPS (CENSUS RETURNS)

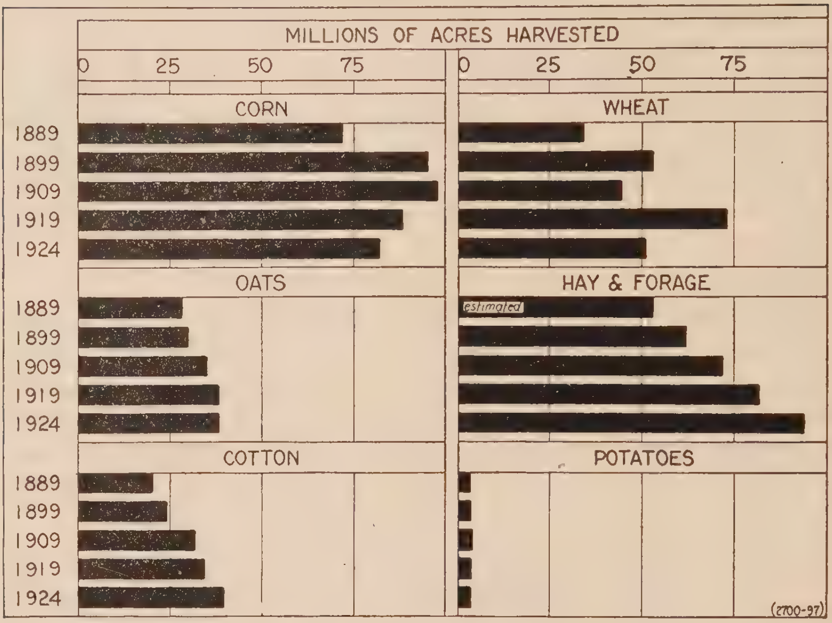


Table 9.—Comparative Acreage and Production of Principal Crops (Census Returns)

[All figures expressed in thousands of acres or of units specified: Hay and forage, hay, sugar cane, and sugar beets, in tons; tobacco, in pounds; small fruits, in quarts; cotton, in running bales; and all other items, in bushels. Total acreage for 1924 excludes crops not shown by acreage at previous censuses but includes estimates for minor crops for which data are not yet available]

Crop	Acres harvested (thousands)					Production (thousands of units specified)			
	1889	1899	1909	1919	1924	1899	1909	1919	1924
All crops with acreage reports	(1)	[2]283,149	[2]311,195	[2]348,552	[2]338,525	----------	----------	----------	----------
All cereals [3]	140,379	184,982	191,396	219,031	186,338	4,438,857	4,512,564	4,680,986	4,244,298
Corn	72,088	94,914	98,383	87,772	82,329	2,666,324	2,552,190	2,345,833	1,823,880
Wheat	33,580	52,589	44,263	73,099	50,862	658,534	683,379	945,403	800,876
Oats	28,321	29,540	35,159	37,991	37,650	943,389	1,007,143	1,055,183	1,304,599
Barley	3,221	4,470	7,699	6,473	6,767	119,635	173,344	122,025	159,139
Rye	2,172	2,054	2,196	7,679	3,744	25,569	29,520	75,992	55,674
Rice (rough)	161	342	610	911	744	9,003	21,839	35,331	29,526
Kafir and milo	(1)	267	1,635	3,619	3,526	5,169	17,597	72,086	58,600
Beans (dry edible)	(1)	454	803	1,162	1,637	5,064	11,251	14,079	(1)
Peas (dry)	(1)	968	1,305	866	(1)	9,440	7,129	5,743	(1)
Flaxseed	1,319	2,111	2,083	1,261	3,435	19,979	19,513	6,653	28,246
Peanuts	204	517	870	1,125	1,105	11,964	19,416	27,450	26,897
Hay and forage	(1)	[2] 61,691	[2] 72,402	[2] 81,618	88,988	[2] 79,252	[2] 97,755	[2] 128,549	116,792
Hay alone	[4] 52,949	58,584	68,227	72,780	82,315	71,113	87,216	90,356	88,384
Tobacco	695	1,101	1,295	1,864	1,538	868,113	1,055,765	1,372,993	1,106,340
Cotton	20,175	24,275	32,044	33,740	39,204	9,535	10,649	11,376	13,683
Potatoes	2,601	2,939	3,669	3,252	2,911	273,318	389,195	290,428	352,462
Sweet potatoes	525	537	641	804	467	42,517	59,232	78,092	37,444
Other vegetables [5]	(1)	2,162	2,763	1,475	1,638	(1)	(1)	(1)	(1)
Sugar cane	275	387	477	373	[6] 326	4,202	6,240	3,545	[6] 1,664
Sugar beets	(1)	110	360	636	743	793	3,902	5,993	6,989
Small fruits	(1)	310	272	249	(1)	463,219	426,566	324,989	(1)
Orchard fruits	(1)	(1)	(1)	(1)	(1)	212,366	213,974	230,682	(1)

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[1] Not available.

[2] Excluding corn cut for forage (14,502,932 acres and 17,793,742 tons in 1919); the acreage is practically all duplicated in the acreages shown for corn harvested as grain.

[3] Emmer and spelts and mixed crops in 1924 excluded; earlier years, included. The acreage and production for these crops in 1919 were 743,907 acres, and 16,443,653 bushels.

[4] Figures for 1889 include small quantities of coarse forage crops.

[5] Including farm gardens in 1899 and 1909, in 1919 vegetables raised for sale only, and in 1924 only seven vegetables.

[6] Acreage for all States; production for Louisiana only.

Source: Bureau of the Census.

Table 10.—Indexes of Acreage and Production of Principal Crops (Census Returns)

Crop	Acreage (1899=100)					Production (1899=100)				
	1889	1899	1909	1919	1924	1889	1899	1909	1919	1924
All crops with acreage reports	------	100	110	123	115	------	------	------	------	------
All cereals	76	100	103	118	101	79	100	102	105	96
Corn	76	100	104	92	87	80	100	96	88	68
Wheat	64	100	84	139	97	71	100	104	144	122
Oats	96	100	119	129	127	86	100	107	112	138
Barley	72	100	172	145	151	65	100	145	102	133
Rye	106	100	107	374	182	111	100	115	297	218
Tobacco	63	100	118	169	154	56	100	122	158	127
Cotton	83	100	132	139	161	78	100	112	119	144
Potatoes	89	100	125	111	99	80	100	142	106	129
Sweet potatoes	98	100	119	150	87	103	100	139	184	88

Source: Computed from Table 9.

Average Yields per Acre.

In considering average yields (Table 11) it should be borne in mind that agriculture has been pushing gradually westward. From about 1890 down to 1920 this movement involved the increasing cultivation, especially for cereals, of land with inadequate rainfall; since 1920 some of this land has ceased to be cultivated. There has been decade by decade improvement in methods of cultivation, seed selection, etc., with consequent higher yields per acre in any given region, but for certain crops this improvement has been in considerable part offset in the averages for the country as a whole by the lower yield on much of the land added to cultivation. In 1926 six of the twelve crops in Table 11 showed an increase in average yield over 1925 and also over the five-year period, 1921 to 1925. In this rise cotton was preeminent, showing a very large increase in its yield. Rice and sweet potatoes in 1926 reached yields per acre higher than the average for any other period shown in the table.

Table 11.—Average Yield per Acre of the Principal Crops

Yearly average or year	Corn	Wheat	Oats	Barley	Rye	Rice	Potatoes	Sweet potatoes	Cotton	Tobacco	Hay (tame)	Flaxseed
	Bu.	*Bu.*	*Bu.*	*Bu.*	*Bu.*	*Bu.*	*Bu.*	*Bu.*	*Lbs.*	*Lbs.*	*Tons*	*Bu.*
1866–1875	26.1	12.0	28.2	22.6	13.6	-------	93.0	-------	176.2	-------	1.22	-------
1876–1885	25.4	12.3	27.4	22.4	13.0	-------	81.2	-------	170.7	-------	1.24	-------
1886–1895	23.8	12.7	26.1	22.8	12.8	-------	74.4	-------	176.9	-------	1.18	-------
1896–1900	26.2	12.9	28.9	23.9	15.1	-------	81.7	-------	193.3	-------	1.38	-------
1901–1905	25.3	14.0	30.7	27.2	15.9	-------	89.3	87.5	184.8	800	1.51	-------
1906–1910	27.6	14.7	28.4	25.1	16.3	32.4	97.1	90.9	180.3	826	1.44	8.7
1911–1915	26.0	15.5	31.7	26.5	16.5	33.8	98.4	95.7	192.0	813	1.41	8.5
1916–1920	27.0	13.6	33.2	24.1	13.9	39.1	96.0	97.2	163.2	812	1.51	6.4
1921–1925	27.8	13.8	30.9	24.8	13.8	38.7	107.5	89.3	144.2	764	1.51	8.3
1923	29.3	13.4	31.9	25.2	12.2	37.7	109.0	97.9	130.6	807	1.49	8.5
1924	22.9	16.5	35.7	26.2	15.8	38.2	126.7	78.4	157.4	734	1.60	9.1
1925	28.8	12.9	33.2	26.8	11.7	37.5	104.6	80.0	167.2	783	1.47	7.3
1926	26.6	14.7	28.2	23.3	11.4	40.3	113.1	100.8	181.9	795	1.47	6.7

Source: Bureau of Agricultural Economics, Department of Agriculture.

PRICES OF AGRICULTURAL PRODUCTS

Prices of agricultural commodities showed a decided downward movement in 1926, the changes being much greater than in 1925. Decreases were shown for almost all of the important farm products, but there were considerable differences in the size of these fluctuations.

General Price Indexes of Agricultural and Other Products.

Table 12 presents comparative index numbers for the prices of agricultural products and of other commodities. In all these indexes the individual products entering into them are weighted according to their approximate importance. The index numbers are all based on 1910–1914 taken as 100. Some difference in movement appears between central-market prices of domestic farm and food products and those of all farm and food products, including imported articles, but greater interest attaches to the former.

Table 12.—Index Numbers of Prices of Agricultural and Other Products

Yearly average or year	Farm prices, 30 commodities, 1910–1914 = 100	Wholesale prices, central markets, 1910–1914 = 100				
		Domestic and imported farm products	Domestic and imported food products	Domestic farm and food products	All commodities except domestic farm and food products	All commodities
1890–1894	(1)	69	82	(1)	(1)	77
1895–1899	(1)	60	72	(1)	(1)	71
1900–1904	(1)	77	81	(1)	(1)	85
1905–1909	(1)	86	89	(1)	(1)	93
1910–1914	100	100	100	100	100	100
1915–1920	168	181	167	176	175	175
1921–1925	131	140	145	143	167	154
1913	100	100	99	99	104	102
1920	205	218	218	221	241	230
1921	116	124	143	133	167	150
1922	124	133	137	136	168	152
1923	135	141	143	143	171	157
1924	134	143	143	144	162	152
1925	147	158	156	158	165	162
1926	136	142	152	147	161	154

(1) Not available.

Sources: Farm prices, Bureau of Agricultural Economics, Department of Agriculture; wholesale prices, Bureau of Labor Statistics, Department of Labor.

The movement of prices on the farm is naturally broadly parallel to that of prices of the same products in central markets. In spite of the fact that railroad rates and marketing costs enter as considerable factors into central market prices and that railroad rates have been more stable than farm prices, the parallelism in the movements of farm prices and of the prices of farm products in central markets was very close from 1920 to 1925. Central market prices decreased in 1926 more than farm prices, with the result that they were closer together than for any other postwar year shown in the table except 1923, the index for farm prices being 136 and that for central market prices of farm products 142. The difference is owing partly to the inclusion of railroad rates and marketing costs in the central market prices, and partly to differences in the composition and weighting of the two sets of index numbers. For example, the farm price index includes horses and mules which, on account of the development of motor cars and tractors, have fallen greatly in price, while these animals are not included in the central market index.

Farm prices during 1926 averaged 7½ per cent lower than for 1925, and 17 per cent higher than for 1921. (Table 12.) They decreased during the course of the year from 143 in January and February to 127 in December. This decline has been continuous since August, 1925, in which month farm prices reached the highest average since November, 1920. During the course of the year 1926 wholesale prices of farm products decreased in about the same proportion as the decrease in farm prices. (Tables 12 to 14.)

Table 13.—Comparative Monthly Indexes of Wholesale Prices of Domestic Farm and Food Products and all Other Products

[1910–1914 = 100]

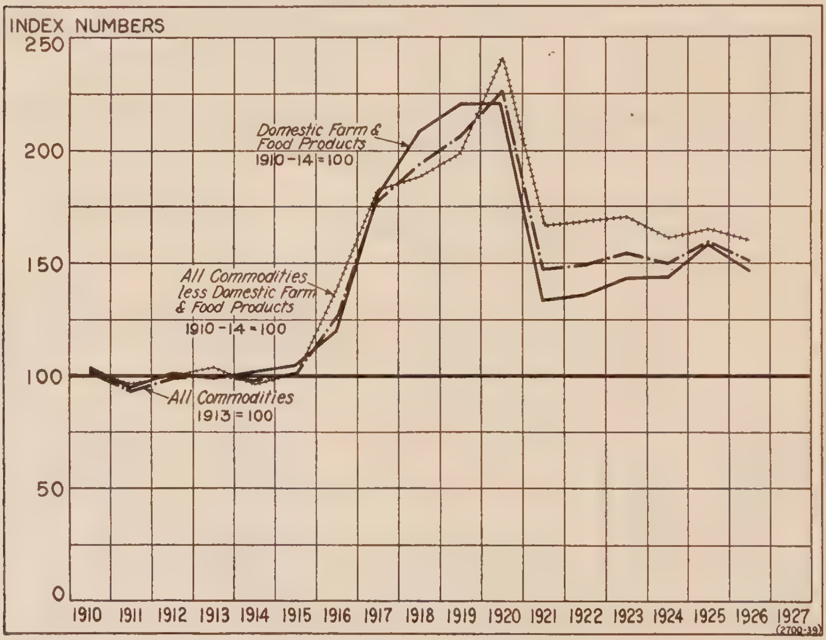
Month	1921		1922		1923		1924		1925		1926	
	Domestic farm and food products	Other products	Domestic farm and food products	Other products	Domestic farm and food products	Other products	Domestic farm and food products	Other products	Domestic farm and food products	Other products	Domestic farm and food products	Other products
January	151	196	124	158	141	177	144	164	161	165	153	165
February	142	185	132	156	142	178	143	166	159	167	151	164
March	141	177	135	155	144	179	140	166	162	165	147	162
April	132	171	135	156	144	180	139	164	155	162	148	160
May	129	168	138	164	142	176	138	162	154	161	148	160
June	126	164	137	168	141	172	135	159	157	163	150	160
July	130	159	140	177	138	169	141	158	161	164	147	159
August	133	156	135	182	139	167	147	159	162	164	144	160
September	133	156	135	179	146	167	145	158	162	163	146	161
October	130	159	139	176	147	165	151	158	156	164	144	160
November	127	161	142	175	146	163	150	160	155	166	140	161
December	125	161	144	175	146	162	156	163	153	165	141	158

Sources: Compiled from reports of the Bureau of Labor Statistics, Department of Labor, by the Bureau of Agricultural Economics, Department of Agriculture.

Methods of comparing the prices of farm products with prices in general depend upon the purpose in view. Farmers are purchasers of all classes of products; they buy farm products themselves, their purchases of draft animals, meat animals for fattening, and grain for feeding especially attaining great magnitude. From one point of view, therefore, it is proper to compare farm products with all commodities including farm products. From another point of view comparison may be made with all commodities excluding farm products and also food products, which consist in large part of manufactures derived from farm products. The weight assigned to farm products and food products in the all-commodity index is large, each of these two classes (when imported articles are included) counting approximately a quarter in the total, so that their movements greatly affect the general movement.

From the nineties, when prices of farm products had been disastrously low, down to 1913 the wholesale prices of farm and food products advanced considerably more than those of other commodities. (Table 12.) During the war and the immediate postwar boom the two moved in close parallelism and reached substantially the same peak in the spring of 1920. The subsequent decline in farm products, however, was much greater than that in commodities in general. The spread between the index of domestic farm and food products (1910–1914 taken as 100) and that for all other commodities in wholesale markets averaged 34 points in 1921, a difference of over 25 per cent. This spread fell gradually through 1925, the index for farm and food products rising and that for other commodities remaining more or less stationary. In 1925 the spread averaged only 7 points, but in 1926 it increased to 14 points.

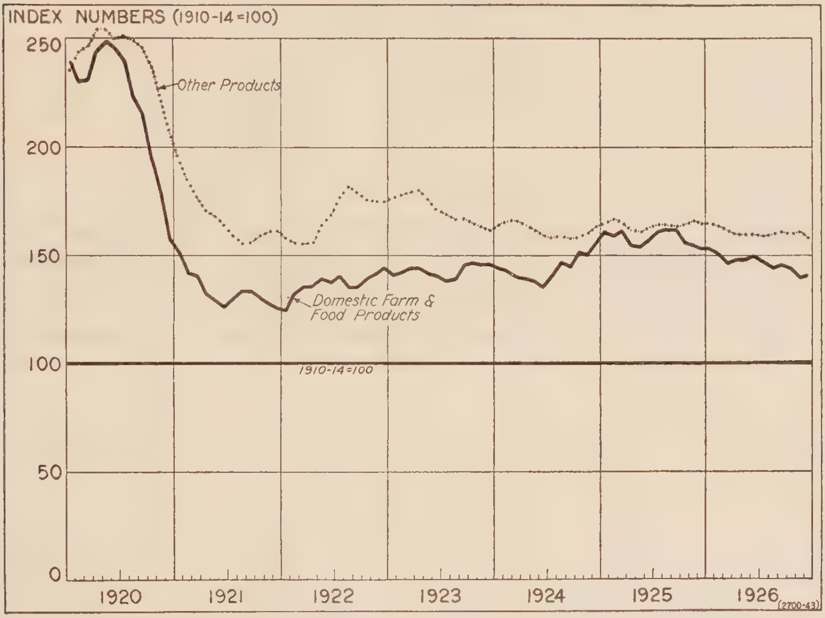
Chart IV.—**COMPARATIVE INDEXES OF WHOLESALE PRICES OF AGRICULTURAL AND OTHER PRODUCTS**



Monthly comparisons show considerable variations in the relation between these two central-market indexes even during the course of the last two years. (Table 13.) In the first half of 1924 the index for domestic farm and food products stood from 20 to 25 points below that for other commodities, but by December the spread had fallen to about 7 points, and by March, 1925, to 3 points. The subsequent slight widening of the spread was due to the normal decline of prices of certain farm products in the spring. By September the farm and food index had advanced until it stood only one point below other products, the narrowest spread at any time since the spring of 1920.

During the last few months of 1925, however, farm and food products as a group fell off appreciably, while other products rose so that at the close of the year the spread was 12 points. It increased to 15 points in March, 1926, narrowed to 10 points in June, and increased to 21 points in November, the largest since June, 1924.

Chart V.—COMPARATIVE INDEXES OF WHOLESALE PRICES OF AGRICULTURAL AND OTHER PRODUCTS, BY MONTHS



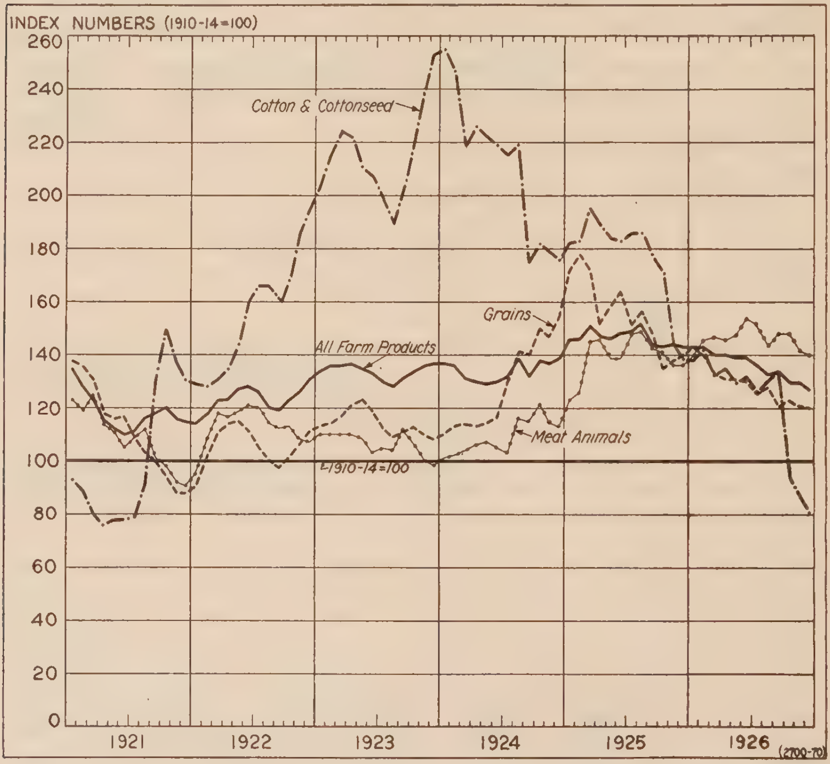
Prices of Farm Products by Groups.

The general indexes of prices of farm products, whether on the farm or in central markets, fail to bring out the market differences of movement among the several subgroups and individual articles. (Table 14.) In comparisons of current farm prices with pre-war levels, for example, there is a very marked difference between the indexes in April, 1926, for fruits and vegetables (253), for meat animals (146), and for the "unclassified" group (83), the level of which has been brought down by the great fall in the prices of horses and mules and by the comparatively small advance over pre-war prices for hay. On the whole, the range among the different groups was more marked in

1926 than in 1925. In 1926 cotton and cottonseed and grains were conspicuously lower than in 1925 and fruits and vegetables were much higher.

Average prices for calendar years have comparatively little significance in the case of crops. Prices following the harvest may be on an entirely different level from those earlier in the year. For the year 1926 as a whole, farm prices of fruits and vegetables averaged 18 per cent higher than for 1925 and meat animals 5 per cent higher. Cotton and cottonseed averaged 31 per cent lower, grains 17 per cent lower, dairy and poultry products 1.4 per cent lower, and the unclassified group 4.3 per cent lower. The change in the grain group in the central-market index parallels that in the farm price of grain. However, the central-market index indicates that livestock and poultry decreased slightly in price from 1925 to 1926, while the farm-price index indicates that prices of meat animals increased slightly.

Chart VI.—**INDEX NUMBERS OF FARM PRICES—ALL PRODUCTS AND GROUPS**



Except in the case of fruits and vegetables, a comparison of December, 1926, farm prices with those of December, 1925, for the various groups gives much the same result as a comparison of the average 1926 prices with the average 1925 prices for the groups. The price of cotton and cottonseed declined sharply in the last three months of 1926, ending the year 42 per cent lower than a year before. Grain prices decreased steadily during 1926, while prices of meat animals showed less variation and were higher in December than a year earlier. The price of dairy and poultry products decreased during the spring and advanced in the fall, which is the usual seasonal movement. Fruits and vegetables finished the year 29 per cent lower than at the end of 1925, in spite of their 18 per cent average increase for the year. This was owing to a great rise in the price of fruits and vegetables from November, 1925, to April, 1926, which was followed by a conspicuous decline in the latter part of the year, as a result of the abundant crops.

Table 14.—Index Numbers of Farm Prices and Wholesale Prices of Agricultural Products, by Groups

[An asterisk (*) indicates the minimum and a dagger (†) the maximum month]

Period (calendar years)	Farm prices, 30 commodities, 1910-1914=100							Wholesale prices, 1913=100				
	Farm products	Grains	Fruits and vegetables	Meat animals	Dairy and poultry products	Cotton and cottonseed	Unclassified	Farm products	Grains	Livestock and poultry	Other farm products	Cotton[1]
1910-1914	100	100	100	100	100	100	100	100.0	(2)	(2)	(2)	(2)
1913	100	92	92	108	100	97	94	100.0	100.0	100.0	100.0	100.0
1919	209	231	189	206	182	247	162	230.8	250.6	210.9	240.4	250.8
1920	205	231	249	173	197	248	152	217.9	255.5	175.4	240.7	259.9
1921	116	112	148	108	151	101	90	123.7	134.2	107.7	134.2	111.3
1922	124	105	152	113	135	156	94	133.3	124.2	116.4	153.7	160.6
1923	135	114	136	106	147	216	109	141.1	124.5	109.6	178.8	226.0
1924	134	129	124	109	137	211	100	143.4	141.3	112.4	173.6	219.8
1925	147	156	160	139	143	177	92	158.1	172.3	140.1	167.0	181.3
1926	136	129	189	146	141	122	88	142.2	148.1	135.4	144.4	132.5
Per cent change, 1925 to 1926	−7.5	−17.3	+18.1	+5.0	−1.4	−31.1	−4.3	−10.1	−14.0	−3.4	−13.5	−26.9
1924												
January-March	135	112	121	102	148	240	99	141.5	121.8	106.5	183.3	249.1
April-June	130	114	135	106	124	222	96	136.3	121.7	109.9	168.0	235.8
July-September	134	137	131	111	126	203	101	143.1	148.8	114.7	166.9	207.6
October-December	138	151	109	116	150	179	103	151.8	171.6	118.6	173.4	186.5
December	139	155	110	113	158	176	102	156.7	185.5	118.5	178.7	185.9
1925												
January-March	148	174	130	131	143	187	95	162.1	193.3	131.3	175.4	194.0
April-June	147	158	164	141	132	185	89	153.4	174.1	136.3	158.5	188.7
July-September	148	152	166	147	138	183	91	161.8	163.6	154.7	166.0	184.4
October-December	143	138	180	138	160	151	92	153.5	158.9	136.9	166.3	158.1
December	143	140	194	136	163	139	92	152.2	165.3	130.5	165.6	152.3
1926												
January	†143	†143	214	*140	153	138	87	†151.8	†169.7	129.5	†163.4	†158.6
February	†143	140	218	146	144	†142	87	149.9	163.5	135.9	155.4	157.0
March	140	133	220	147	137	133	85	144.0	152.2	133.9	148.4	144.9
April	140	131	†253	146	133	135	83	144.9	154.1	133.1	150.4	142.4
May	139	131	240	148	131	130	82	144.2	150.7	138.2	145.3	141.9
June	139	130	216	†154	*130	132	*81	143.7	145.0	†143.5	141.6	138.7
July	136	125	195	152	131	126	85	140.8	145.8	138.1	139.5	143.6
August	133	128	166	144	*130	130	89	137.9	139.2	131.9	141.7	142.8
September	134	121	*136	148	139	134	93	141.1	138.6	141.0	140.8	126.9
October	130	123	*136	148	144	94	†97	138.4	142.5	139.5	*133.7	100.6
November	130	121	142	142	157	88	†97	*134.6	*138.1	129.2	136.7	97.9
December	*127	*120	137	*140	†161	*81	91	134.9	142.2	*128.8	136.0	*96.4

[1] New Orleans prices; cotton is included in the preceding column, "Other farm products," in which it is a dominant item.

[2] Not available.

Sources: Farm prices from Bureau of Agricultural Economics, Department of Agriculture; wholesale prices from Bureau of Labor Statistics, Department of Labor.

Farm Prices of Leading Individual Products.

The significance of changes in prices of individual crops is much clearer when they are presented on a crop-year basis. The farm prices shown in Table 15 are weighted averages for the entire country, and the yearly figures are weighted according to the volume marketed each month.

Table 15.—Farm Prices of Individual Crops, by Crop Years

NOTE.—Prices represent weighted average for the entire country. Yearly averages are weighted according to quantities marketed each month. All prices in cents per bushel, except for hay and cottonseed, which are in dollars per ton, and cotton in cents per pound. Crop year ends in June for wheat, rye, hay, and potatoes; in October for corn, and in July for other crops named. Quotations are as of the 15th of each month.

Crop year ending—	Wheat	Rye	Corn	Oats	Barley	Potatoes	All hay (loose)	Cottonseed	Cotton
1910–1914	88.7	72.1	62.8	39.9	60.8	69.0	11.83	21.10	12.2
1915–1920	162.1	126.1	118.8	59.7	89.9	127.8	15.05	59.39	25.4
1921–1925	121.1	91.8	76.6	42.9	61.0	99.5	13.14	32.74	21.4
1920	218.6	146.9	151.5	80.3	124.9	223.8	21.34	67.27	35.2
1921	182.9	148.2	62.1	51.1	70.7	131.5	16.51	22.95	15.8
1922	104.4	86.9	54.3	33.4	48.4	121.3	11.83	29.72	17.0
1923	98.0	68.1	76.7	39.0	51.8	73.9	11.68	34.70	22.8
1924	92.4	59.4	84.0	42.6	56.8	94.2	12.93	42.23	28.7
1925	127.8	96.3	105.8	48.3	77.1	76.5	12.76	34.08	22.9
1926	145.9	83.1	69.9	38.8	58.7	183.5	12.77	30.82	19.6
December, 1925	153.7	86.8	70.7	39.1	58.4	201.5	13.40	27.87	17.4
July, 1926	127.7	80.7	71.5	37.7	55.3	174.6	12.96	31.31	15.4
August	125.1	86.1	79.5	37.9	55.0	140.5	13.04	29.73	16.1
September	117.7	81.6	76.2	35.6	52.9	130.6	12.88	27.38	16.8
October	121.4	82.4	74.5	39.0	54.4	126.4	13.08	20.06	11.7
November	123.6	83.0	66.0	39.8	56.0	141.3	13.22	18.66	11.0
December	122.8	82.4	64.5	41.1	56.4	137.0	13.47	18.05	10.0
	Index numbers, 1910–1914=100 [1]								
1915–1920	182.8	174.9	189.2	149.6	147.9	185.2	127.2	281.5	208.2
1921–1925	136.5	127.3	122.0	107.5	100.3	144.2	111.1	155.2	175.4
1920	246.4	203.7	241.2	201.3	205.4	324.3	180.4	318.8	288.5
1921	206.2	205.5	98.9	128.1	116.3	190.6	139.6	108.8	129.5
1922	117.7	120.5	86.5	83.7	79.6	175.8	100.0	140.9	139.3
1923	110.5	94.5	122.1	97.7	85.2	107.1	98.7	164.5	186.9
1924	104.2	82.4	133.8	106.8	93.4	136.5	109.3	200.1	235.2
1925	144.1	133.6	168.5	121.1	126.8	110.9	107.9	161.5	187.7
1926	164.5	115.3	111.3	97.2	96.5	265.9	107.9	146.1	160.7
December, 1925	173.3	120.4	112.6	98.0	96.1	292.0	113.3	132.1	142.6
December, 1926	138.4	114.3	102.7	103.0	92.8	198.6	113.9	85.5	82.0

[1] Cottonseed average used as base for the index number is for years ending 1911 to 1914 and covers only 11 months of crop year 1910–11.

Source: Bureau of Agricultural Economics, Department of Agriculture.

After the harvest of 1925, wheat was the only major cereal to gain in price. It was higher in price in December than in July, as a result of a very small crop that year, while all the other cereals—especially corn—fell off sharply. The wheat price increased by 14 per cent for the crop year 1925–26 in contrast with decreases varying from 14 to 34 per cent in the prices of other cereals. Wheat production was considerably larger in 1926 and prices declined until they reached, in the latter part of the year, a more normal relationship with other grains. The price of potatoes after the very unsatisfactory harvest of 1925 showed a phenomenal advance, averaging for the crop year 1926 about two and one-half times the level of the previous year. Potato prices, however, declined after the last harvest, and in December, 1926, were one-third lower than a year earlier. The prices both of cotton and of cottonseed had a drastic decline during the last two years from the high levels reached in 1924. The sharpest decline took place in the last half of 1926 and in December cotton averaged 35 per cent lower than in July.

Table 16.—Farm Prices of Individual Livestock and Animal Products, by Market and Calendar Years

NOTE.—Prices represent weighted averages for the entire country. Yearly averages are weighted according to volume marketed each month. Market year ends in July for cattle, October for hogs, May for lambs, June for chickens, March for eggs. Quotations are as of the 15th of each month. All prices in cents per pound except for eggs, which are in cents per dozen.

Yearly average, year, or month	Market year					Calendar year			
	Beef cattle	Hogs	Lambs	Chickens	Eggs	Veal calves	Sheep	Wool, unwashed	Butter
1911–1914	5.24	7.01	5.76	11.2	19.0	6.95	4.44	17.0	25.1
1915–1920	7.91	12.04	10.61	17.3	28.6	10.49	8.35	41.0	39.5
1921–1925	5.79	8.30	9.91	19.6	28.1	8.15	6.35	32.1	38.6
1920	9.00	13.43	13.05	24.2	41.8	11.80	8.51	39.1	54.3
1921	6.76	8.52	9.41	22.8	39.3	7.81	4.65	16.4	37.0
1922	5.18	8.10	7.83	19.3	25.3	7.68	5.96	29.8	35.3
1923	5.55	7.34	10.30	18.2	24.7	7.99	6.65	38.9	40.4
1924	5.57	7.06	10.54	18.3	25.2	8.12	6.81	36.9	39.4
1925	5.88	10.46	11.45	19.2	26.1	8.85	7.70	38.5	40.7
1926	6.40	11.63	11.98	20.7	28.3	9.61	7.43	32.5	41.1
December, 1925	6.18	10.51	12.67	19.5	48.1	9.17	7.79	39.5	46.0
July, 1926	6.46	12.69	11.52	23.6	25.7	9.47	7.09	31.9	39.1
August	6.29	11.66	11.12	22.1	26.4	9.54	6.92	31.9	39.0
September	6.48	12.07	11.32	21.4	31.5	10.06	7.13	32.6	40.9
October	6.43	12.06	11.31	20.8	36.8	10.29	6.93	31.6	41.8
November	6.32	11.45	11.11	20.0	44.9	9.54	6.75	31.6	43.5
December	6.42	10.97	10.92	19.8	47.6	9.44	6.95	30.1	45.5
	Index numbers, 1911–1914=100								
1915–1920	151.0	171.8	184.2	154.5	150.5	150.9	188.1	241.2	157.4
1921–1925	110.5	118.4	172.0	175.0	147.9	117.3	134.0	188.8	153.8
1920	171.8	191.6	226.6	216.1	220.0	169.8	191.7	230.0	216.3
1921	129.0	121.5	163.4	203.6	206.8	112.4	104.7	96.5	147.4
1922	98.9	115.5	135.9	172.3	133.2	110.6	134.2	175.3	140.6
1923	105.9	104.7	178.8	162.5	130.0	115.0	149.8	228.8	161.0
1924	106.3	100.7	183.0	163.4	132.6	116.8	153.4	217.1	157.0
1925	112.2	149.2	198.8	171.4	137.4	127.3	173.4	226.5	162.2
1926	122.1	165.9	208.0	184.8	148.9	138.3	167.3	191.2	163.7
December, 1925	117.9	149.9	220.0	174.1	253.2	131.9	175.5	232.4	183.3
December, 1926	122.5	156.5	189.6	176.8	250.5	135.8	156.5	177.1	181.3

Source: Bureau of Agricultural Economics, Department of Agriculture.

Less disparity in recent price movement appears among the several kinds of animals and animal products. (Table 16.) All of these except sheep and wool averaged higher in the market year 1925-26 (corresponding in some cases with the calendar year 1925) than in the preceding market year. Beef cattle, hogs, chickens, and veal calves were higher in December, 1926, than in December, 1925, while lambs, eggs, sheep, wool, and butter were lower in December, 1926. None of these price changes were large. The prices of beef cattle still lag behind those of most animal products, although 4 per cent higher at the close of 1926 than one year before.

Central Market Prices of Individual Agricultural Products.

Table 17 shows price indexes (not absolute prices) of a large number of individual farm products at typical central markets. The calendar-year averages given, unlike the crop-year averages of farm prices above presented, are not weighted according to the quantities marketed at different times of the year, and this considerably lessens their statistical significance. In the case of some products 1913 was not a typical pre-war year, and the recent indexes would appear considerably higher or considerably lower if based on an average price of several years preceding the war. The figures are therefore more significant for comparison among recent individual years and months.

Table 17.—Index Numbers of Central Market Prices of Individual Agricultural Products

NOTE.—Based on 1913 as 100. Prices of grain (except spring wheat) and livestock at Chicago; other products, where distinguished, at market indicated.

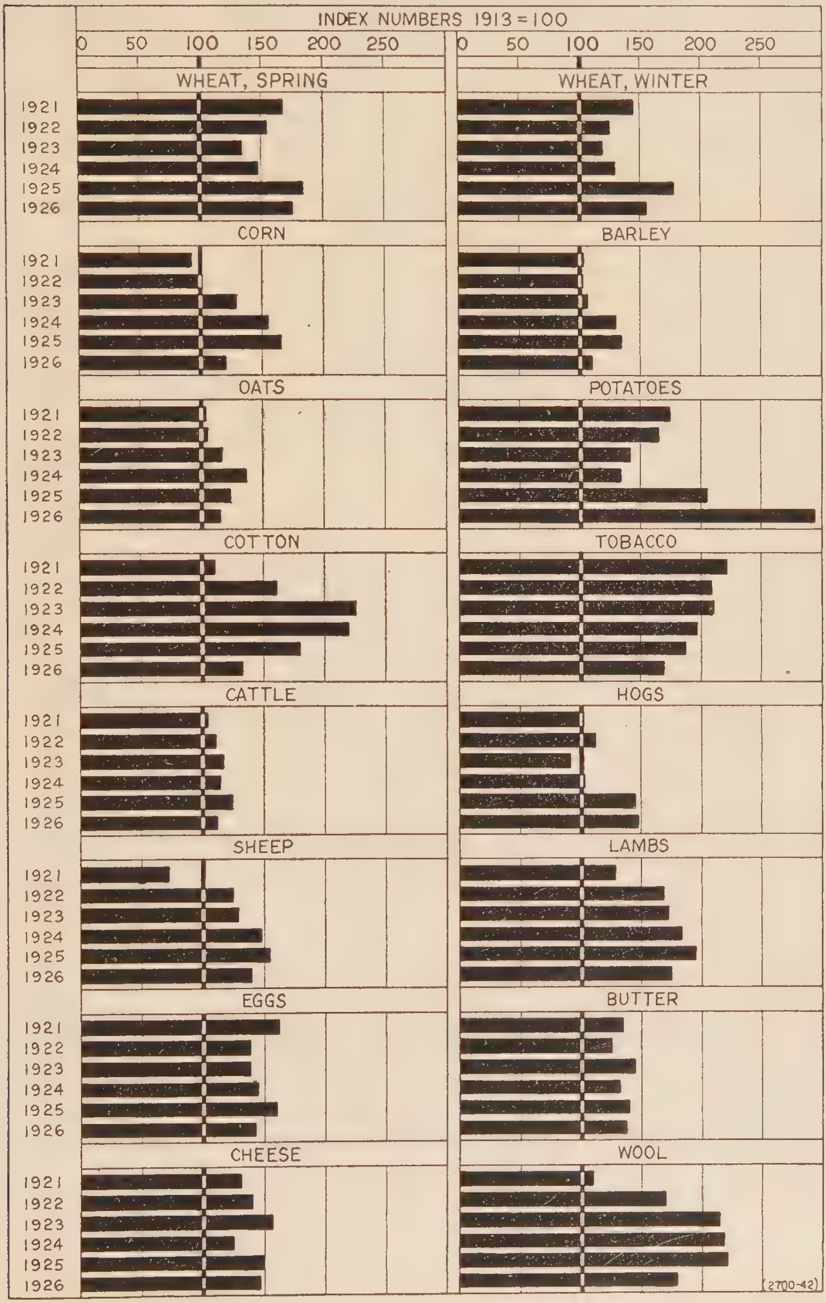
Commodity	Calendar year average (unweighted)						December, 1925	1926			
	1921	1922	1923	1924	1925	1926		March	June	September	December
Wheat No. 1, northern spring, Minneapolis	168	154	135	148	184	177	193	180	182	162	163
Wheat, No. 2, red winter	146	126	119	130	179	156	182	170	150	138	142
Barley, malting	102	101	106	131	135	111	115	106	109	107	119
Corn, contract grades	93	100	131	155	166	121	127	119	114	127	121
Oats, contract grades	103	105	117	137	124	115	112	110	108	113	134
Rye, No. 2	191	139	118	144	177	150	163	133	143	152	152
Cotton, middling upland, New Orleans	111	161	226	220	181	133	152	145	139	127	96
Cottonseed, average price at gin	102	161	201	176	161	125	128	135	146	126	83
Flaxseed, Minneapolis	137	184	203	185	202	173	191	169	171	172	165
Hay, timothy, No. 1	146	143	148	155	147	147	154	144	151	145	139
Potatoes, white, good to choice, Chicago	175	165	142	134	206	294	364	390	311	223	221
Tobacco, Burley, good leaf, Louisville	222	208	210	197	188	170	189	189	159	159	159
Cattle, steers, good to choice	103	111	117	114	125	112	118	114	113	120	114
Hogs, heavy	101	112	92	102	146	148	130	137	167	148	141
Sheep, ewes, native, all grades	73	124	130	148	154	141	172	164	113	123	120
Lambs, western, food to choice[1]	129	169	173	184	195	176	205	163	207	177	155
Eggs, fresh, firsts, New York	162	139	139	146	160	143	204	116	121	152	193
Milk, fresh, New York	169	164	172	154	173	174	174	174	171	178	178
Wool, Ohio, grease basis, Boston (¼ and ⅜ grade)	111	171	214	218	222	181	210	190	171	175	179
Butter, creamery, extra New York	134	126	145	133	141	138	153	133	127	138	170
Cheese, whole milk, State, colored, average, New York	132	141	157	125	150	147	165	154	135	146	164

[1] For 1925 and 1926, grade is medium to good.

Source: Bureau of Labor Statistics, Department of Labor.

The products listed, with the exception of potatoes, hay, hogs, and milk showed lower average prices for 1926 than for the preceding year. Potatoes showed the only real increase, the prices of hay, hogs, and milk being practically the same as in 1925. Somewhat different relationships appear in comparison between December, 1926, and the

Chart VII.—INDEXES OF CENTRAL MARKET PRICES OF PRINCIPAL FARM PRODUCTS



corresponding month of the previous year, as the commodities showing increases were barley, oats, hogs, milk, and butter.

Tables 18 and 19, together with Charts VIII and IX, show the movements of central market prices for cereals. The crop year averages are weighted according to the normal volume of sales from month to month, while the calendar year averages are not weighted. The basis of the quotation in some instances is different from that given for the same commodity in the preceding table. The figures bring out clearly the market advances in the prices of grains during the first decade of the present century, the more or less stationary position during the next five years, the great increase during the war and immediate postwar years, the violent subsequent fall, the marked upturn in the prices of all cereals for the crop year 1924–25, the irregular changes in the prices of cereal crops during the crop year 1925–26, and the general decline in crop prices after the harvest of 1926.

Chart VIII.—PRICES OF WHEAT AND CORN AT CENTRAL MARKETS, BY CROP YEARS

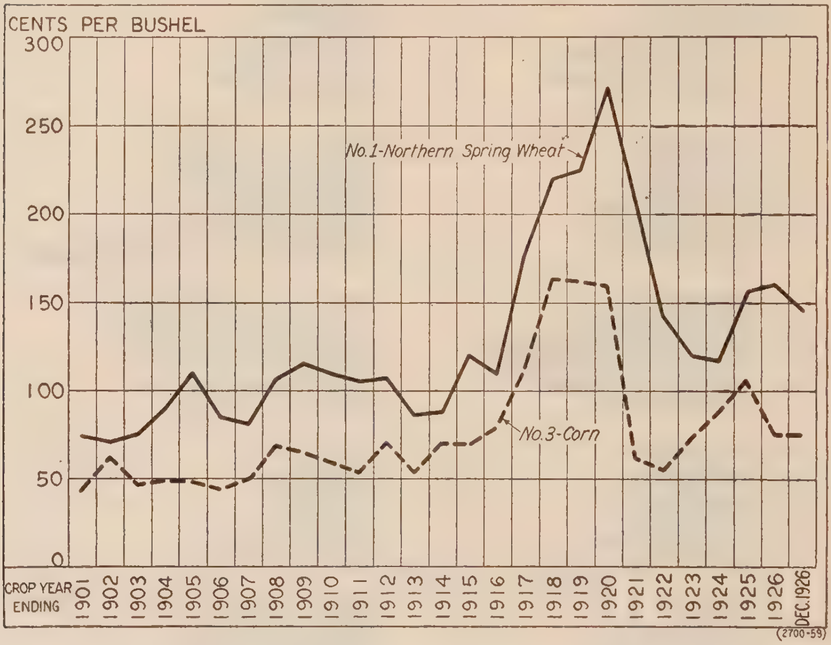


Table 18.—Central Market Prices of Cereals, by Crop Years and Calendar Years

NOTE.—All prices in cents per bushel, except flour, which is in dollars per barrel. The grades and markets covered are as follows: Wheat, No. 1 northern spring, Minneapolis; wheat, No. 2 red winter, Chicago; flour, spring patents, Minneapolis; rye, No. 2, Chicago; corn, No. 3 yellow, Chicago; oats, No. 3 white, Chicago; barley, No. 2, Minneapolis. Crop years are as follows: July 1–June 30, for wheat, flour, and rye; November 1–October 31, for corn; August 1–July 31, for oats and barley.

Period	Absolute prices							Index numbers, 1910–1914=100			
	Spring wheat	Winter wheat	Flour[1]	Rye	Corn	Oats	Barley	Spring wheat	Winter wheat	Corn	Oats
Weighted averages, crop year ending:											
1900–1904	75	[2] 77	(3)	(3)	47	33	(3)	76	78	77	83
1905–1909	100	[4] 88	(3)	(3)	55	40	(3)	101	89	90	100
1910–1914	99	99	4.97	76	61	40	64	100	100	100	100
1915–1920	187	177	9.49	150	124	61	106	189	179	203	153
1921–1925	149	144	8.13	107	77	44	67	151	145	126	110
1920	272	224	13.54	170	159	80	143	275	226	261	200
1921	207	223	10.51	162	62	51	74	209	225	102	128
1922	143	125	8.07	97	55	35	55	144	126	90	88
1923	120	114	6.89	81	73	41	58	121	115	120	103
1924	117	102	6.49	70	88	45	62	118	103	144	113
1925	156	158	8.67	124	106	50	84	158	160	174	125
1926	161	164	9.13	96	75	41	67	163	166	123	103
December, 1926	146	140	8.02	96	75	46	67	147	141	123	115
Unweighted averages, calendar year:											
1920	260	251	13.16	185	142	80	124	263	254	233	200
1921	154	145	8.64	122	57	37	59	156	146	93	93
1922	136	124	7.55	88	62	38	57	137	125	102	91
1923	121	117	6.52	75	82	43	60	122	118	134	108
1924	132	137	7.36	92	96	50	76	133	138	157	125
1925	165	178	9.04	113	103	45	78	167	180	169	113
1926	158	155	8.80	96	75	41	64	160	157	123	103

[1] Simple average.
[2] Average for the period ending 1901 to 1904.
[3] Not available.
[4] Average for the period ending 1907 to 1909.

Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 19.—Central Market Prices of Corn and Oats, by Months

NOTE.—All prices in cents per bushel. Grades and markets the same as in Table 18. Minimum month of each year indicated by an asterisk (*); the maximum month by a dagger (†). For wheat prices by months see Table 33.

Month	Corn						Oats					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	†65	*48	*70	*76	†124	79	†44	34	43	*46	†58	42
February	63	55	72	78	122	75	42	36	44	48	53	41
March	62	57	73	77	117	72	42	36	45	47	48	40
April	57	58	79	77	105	71	36	38	†46	48	42	42
May	60	62	82	77	115	71	39	38	45	48	45	41
June	63	61	84	82	113	*70	37	37	43	51	49	40
July	60	64	88	109	108	78	34	36	40	54	44	42
August	56	62	88	117	102	†80	32	*32	*38	50	41	*38
September	53	64	89	114	91	79	35	38	40	48	*39	*38
October	*45	69	†104	110	82	77	*31	42	43	50	*39	44
November	47	71	82	111	83	71	33	43	43	50	40	42
December	47	†73	71	†120	*76	75	34	†44	44	†58	42	†46

Source: Bureau of Agricultural Economics, Department of Agriculture.

Wages of Farm Labor.

Wages of farm labor per month have increased in each of the past four years. The average increase which was large in 1923, but very slight in 1924 and 1925, amounted to about 3 per cent in 1926. Pronounced increases during the past year occurred in the far Western States and the North Atlantic States, the two sections which already had much the highest levels of farm wages. Wages also increased considerably during 1926. There is normally some seasonal variation in farm wages, which are highest in the fall and lowest in the winter. Farm wages may be compared with those of other classes of labor by reference to that part of the first section which concerns wages. (See pp. 61 to 65.)

Chart IX.—PRICES OF WHEAT AND CORN AT CENTRAL MARKETS, BY MONTHS

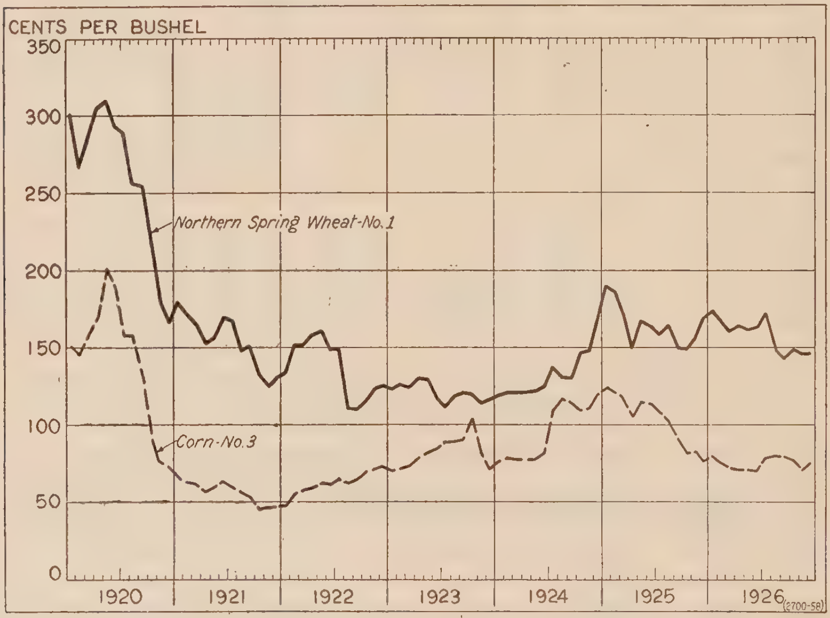


Table 20.—Average Yearly Farm Wage Rates

Year	Labor per month—		Labor per day—	
	With board	Without board	With board	Without board
1910	$19.58	$28.04	$1.07	$1.40
1913	21.27	30.21	1.15	1.48
1915	21.08	29.97	1.12	1.45
1917	28.64	40.19	1.56	2.00
1918	35.12	49.13	2.05	2.61
1919	40.14	56.77	2.44	3.10
1920	47.24	65.05	2.84	3.56
1921	30.25	43.58	1.66	2.17
1922	29.31	42.09	1.64	2.14
1923	33.09	46.74	1.91	2.45
1924	33.34	47.22	1.88	2.44
1925	33.88	47.80	1.89	2.46
1926	34.86	48.86	1.91	2.49

Section	Labor per month—		Labor per day—	
	With board	Without board	With board	Without board
JANUARY, 1927				
United States	$32.94	$47.07	$1.79	$2.36
North Atlantic States	44.42	67.30	2.65	3.41
North Central States	37.12	52.18	2.15	2.84
South Atlantic States	25.55	35.66	1.35	1.77
South Central States	24.72	35.09	1.29	1.69
Western States	50.36	73.27	2.32	3.18

Source: Bureau of Agricultural Economics, Department of Agriculture.

AGRICULTURAL EXPORTS

Relative Importance and Geographic Distribution.

Agricultural products have at all times constituted a very large fraction of the total exports of the United States, though the proportion is much smaller at present than half a century ago and considerably smaller than at the beginning of the present century. In 1926 (calendar year) the value of domestic exports of agricultural products was $1,817,000,000 out of a grand total of $4,712,000,000, thus representing 38.6 per cent.

The value of agricultural exports has been greatly affected by changes in prices, and even the proportion they form of the total has been affected by differences between the price movements of agricultural products and those of other exported commodities. The value of agricultural exports in the calendar year 1926 was the lowest of any postwar year, even though it was 75 per cent higher than the average for the five fiscal years 1910–1914. The decrease as compared with 1925 was chiefly a result of lower prices, particularly that of cotton. Table 21 shows the value of agricultural exports by fiscal years, which correspond roughly to crop-production years, since 1852.

Table 21.—Value of Domestic Exports of Agricultural Products

[In thousands of dollars]

Yearly average, years ending June 30—	Value	Per cent of all exports [1]	Yearly average or year, years ending June 30—	Value	Per cent of all exports [1]
1852–1856	164, 895	80. 9	1912–1916	1, 256, 452	45. 1
1857–1861	215, 709	81. 1	1917–1921	2, 862, 005	42. 7
1862–1866	148, 866	75. 7	1922–1926	1, 951, 522	45. 9
1867–1871	250, 713	76. 9			
1872–1876	396, 666	78. 5	1920	3, 864, 543	48. 6
1877–1881	591, 351	80. 4	1921	2, 609, 555	40. 9
1882–1886	557, 473	76. 3	1922	1, 916, 854	51. 8
1887–1891	573, 287	74. 7	1923	1, 799, 812	46. 3
1892–1896	638, 748	73. 0	1924	1, 867, 512	44. 2
1897–1901	827, 566	65. 9	1925	2, 281, 028	47. 7
1902–1906	879, 541	59. 5	1926	1, 892, 404	40. 7
1907–1911	975, 399	53. 9			

[1] Based on total value of domestic exports.

Source: Bureau of Foreign and Domestic Commerce.

Europe has at all times been the principal market for American agricultural products. Before the war that continent took five-sixths of the total, and during recent years the proportion has ranged from three-fourths to four-fifths. The great bulk of the agricultural exports to Europe go to five densely populated industrial countries of northwestern Europe—the United Kingdom, France, Germany, Netherlands, and Belgium—though shipments to the Scandinavian countries and to Italy are also large. The proportion of our agricultural exports going to Europe, especially during recent years, is somewhat understated in the official statistics by reason of the fact that the very considerable quantities of grain shipped from the United States to Canada are for the most part actually destined for European countries. (For distribution of agricultural exports by continents down to 1923, see Commerce Yearbook, 1924, p. 103.)

The United States is the most important source of the agricultural products imported into Europe. A calculation made with respect to the five countries first above named, for the years 1920 to 1922, inclusive, shows that the United States furnished 68 per cent of the cotton imported by those countries, 67 per cent of the pork products, and 47 per cent of the wheat. The proportions for cotton and pork remain more or less constant, but those for wheat vary greatly from year to year.

Table 22.—Value of Agricultural Exports (Domestic) of the United States, by Groups

[In millions and tenths of millions of dollars]

Calendar year	Total agricultural exports	Animals and products edible	Dairy products and eggs	Grains and preparations	Vegetables, fruits, and nuts	Miscellaneous animal and vegetable products	Cotton	Tobacco	Total, excluding tobacco
1910-1914 (fiscal)	1, 035. 7	151. 8	6. 3	147. 3	35. 0	98. 7	551. 9	44. 8	990. 9
1913	1, 143. 3	158. 8	6. 9	197. 4	40. 5	111. 2	575. 5	52. 9	1, 090. 4
1919	4, 096. 0	1, 017. 5	168. 5	935. 9	175. 3	401. 5	1, 137. 4	260. 0	3, 836. 1
1920	3, 452. 3	472. 8	96. 7	1, 085. 9	117. 9	296. 9	1, 136. 4	245. 5	3, 206. 7
1921	2, 114. 9	309. 1	56. 3	758. 4	90. 4	161. 4	534. 2	205. 1	1, 909. 8
1922	1, 884. 4	262. 2	34. 9	516. 0	93. 6	158. 1	673. 3	146. 5	1, 737. 9
1923	1, 820. 5	309. 6	36. 4	311. 4	87. 7	115. 0	807. 1	153. 4	1, 667. 0
1924	2, 110. 1	275. 5	35. 7	433. 8	117. 1	133. 3	950. 6	164. 1	1, 945. 9
1925	2, 136. 2	271. 3	31. 1	351. 8	121. 1	147. 3	1, 059. 8	153. 8	1, 982. 4
1926	1, 816. 7	238. 2	26. 8	355. 7	132. 6	112. 1	814. 4	136. 9	1, 679. 8

Source: Bureau of Foreign and Domestic Commerce.

Agricultural Exports, by Classes.

Table 22 presents by calendar years, the value of agricultural exports classified into seven main groups. In 1926 cotton made up 44.8 per cent of the total value of these exports, grains 19.6 per cent, edible animals and products 13.1 per cent, tobacco 7.5 per cent, vegetables, fruits, and nuts 7.3 per cent, dairy products and eggs 1.5 per cent, and miscellaneous animal and vegetable products 6.2 per cent. These proportions are considerably different from those of 1913. Moreover, there have been considerable fluctuations in the relative importance of the different classes from year to year since the war, chiefly owing to variations in the wheat and cotton crops and to differences in price movements among the several commodities. The value of exports of grains and of cotton is much more variable from year to year than that of the other groups.

Table 23 gives a more detailed grouping of agricultural exports. Some of the subgroups here shown include nonfood along with food products, whereas in the preceding table a complete segregation is made.

Table 23.—Value of Domestic Exports of Principal Agricultural Products or Groups of Products

[Millions and tenths of millions of dollars; data except as stated are for calendar years]

Product	1910–1914 (fiscal)	1913	1919	1921	1922	1923	1924	1925	1926
Grand Total [1]	1,035.7	1,143.3	4,096.0	2,114.9	1,884.4	1,820.5	2,110.1	2,136.2	1,816.7
Live animals	13.0	7.1	12.0	17.9	11.4	6.3	6.1	8.5	5.5
Meats	62.7	68.9	690.9	150.9	134.5	149.4	113.4	117.9	98.7
Eggs and dairy products	6.3	6.9	168.5	56.3	34.9	36.4	35.7	31.1	26.8
Animal fats and oils	83.8	90.6	326.3	146.0	118.2	158.5	159.0	150.3	136.1
Hides and skins	3.2	3.0	10.9	4.1	4.0	4.9	12.8	12.0	10.8
Bread grains [2]	107.6	154.0	727.1	596.9	339.8	236.1	371.5	275.2	300.4
Coarse grains	38.2	41.7	167.6	138.2	160.2	62.0	54.7	72.8	49.8
Rice	.6	.9	34.8	20.7	15.5	12.9	7.0	3.3	4.9
Fodders and feeds	28.1	34.7	38.1	26.4	22.4	21.7	29.4	33.8	28.2
Vegetables	5.8	5.9	45.8	17.5	15.3	16.4	16.8	16.2	17.8
Fruits	28.0	32.9	122.7	68.3	74.4	67.5	96.5	100.7	110.3
Vegetable oils, oilseeds, and nuts	21.2	22.0	102.1	29.6	15.8	12.1	10.9	14.1	11.0
Coffee and substitutes	7.3	8.8	8.8	5.9	5.5	5.7	7.5	8.0	9.2
Sugar and related products	9.5	8.5	143.4	58.4	77.3	36.1	32.8	36.1	14.6
Seeds, except oilseeds	2.6	2.6	8.3	4.6	4.4	3.3	3.3	3.5	4.0
Tobacco	44.8	52.9	260.0	205.1	146.5	153.4	164.1	153.8	136.9
Cotton	551.9	575.5	1,137.4	534.2	673.3	807.1	950.6	1,059.8	814.4
Wool and hair	1.3	1.3	3.8	1.1	1.2	1.5	1.9	2.4	2.0

[1] Totals include various minor items not shown separately.

[2] Includes wheat and rye; also flour and flour products.

Source: Bureau of Foreign and Domestic Commerce.

Quantitative Change in Agricultural Exports.

In order to eliminate the effect of the great fluctuations in prices upon the export statistics, indexes have been calculated showing the changes in agricultural exports on the basis of constant prices, and also indexes showing average price changes. The method employed is the same as that used for determining quantity and price indexes of exports in general, more fully set forth in the section on foreign trade. (See p. 88.)

The indexes as presented in Table 24, however, instead of showing what percentage the figures for later years are of the figures for a common basic pre-war year or pre-war yearly average, show the ratio of the figures for each year to the figures for the next preceding year covered by the table, except that in addition they show the ratio of the figures for 1926 to the pre-war figures. The quantity of agricultural exports in 1919 was 54 per cent higher than for the pre-war period. A 20 per cent decrease in 1920 and a fluctuating movement through subsequent years brought the ratio of 1926 to pre-war years down to 120. Although the general index shows only a 4 per cent increase between 1925 and 1926, there were actually wide variations in the volume of trade in individual commodities. There were considerable declines in quantitative exports of animal food products and dairy products and large increases in exports of grains, vegetables, fruits and nuts, and cotton.

Table 24.—Agricultural Export Indexes:[1] Quantity, Price, and Value

Ratio of year ended Dec. 31	Total agricultural exports			Animals and products, edible			Dairy products and eggs			Grains and preparations		
	Quantity	Price	Value	Quantity	Price	Value	Quantity	Price	Value	Quantity	Price	Value
1919 to 1910–1914	154	256	395	263	255	670	1,342	200	2,682	263	241	635
1920 to 1919	80	105	84	59	79	46	53	108	57	107	109	116
1921 to 1920	109	56	61	104	63	65	70	83	58	123	57	70
1922 to 1921	90	99	89	90	94	85	75	83	62	81	84	68
1923 to 1922	85	114	97	125	95	118	94	111	104	60	100	60
1924 to 1923	118	99	116	88	101	89	102	96	98	120	116	139
1925 to 1924	99	102	101	76	130	98	79	110	87	68	119	81
1926 to 1925	104	82	85	89	98	88	86	100	86	117	86	101
1926 to 1910–1914	120	147	175	105	149	157	279	153	426	166	146	242

Ratio of year ended Dec. 31	Vegetables, fruits, and nuts			Cotton			Tobacco		
	Quantity	Price	Value	Quantity	Price	Value	Quantity	Price	Value
1919 to 1910–1914	236	213	501	76	270	206	197	294	580
1920 to 1919	62	109	67	94	106	100	61	155	94
1921 to 1920	105	73	77	104	45	47	110	76	84
1922 to 1921	104	99	104	94	134	126	84	85	71
1923 to 1922	107	88	94	87	137	120	111	95	105
1924 to 1923	141	94	134	126	93	118	120	89	107
1925 to 1924	92	112	103	126	88	111	91	103	94
1926 to 1925	115	95	110	107	72	77	101	88	89
1926 to 1910–1914	255	148	379	106	139	148	123	248	306

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[1] This table is compiled on a different basis from other tables of indexes, showing in most cases the ratio of a specified year to the year preceding, instead of showing the ratio of each postwar year to a common basic pre-war year or pre-war average.

Source: Bureau of Foreign and Domestic Commerce.

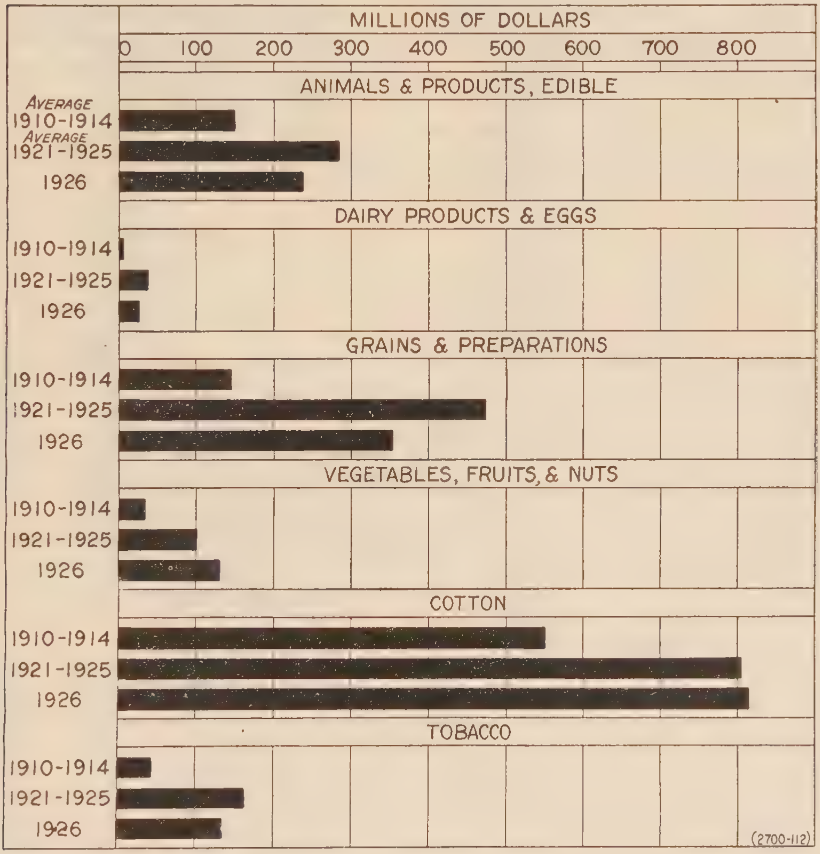
Prices of Agricultural Exports.

The same calculation from which quantity indexes of agricultural exports are derived gives indexes of the changes in prices of agricultural exports. In substance these represent percentages of change in the prices of the several individual commodities combined into a weighted average, giving due regard to the relative importance of the various commodities. (Table 24.)

Prices of agricultural exports in 1919 were 156 per cent above pre-war levels. In 1920 they increased by 5 per cent over 1919. The index fell precipitously in 1921 to a point only a little over half as high as the year before, and remained substantially unchanged in 1922, the decline in grains, dairy products, animal products, and tobacco being offset by the advance in the price of cotton. The export price index rose by 14 per cent in 1923, owing to a further large increase in the price of cotton and dairy products, and remained approximately unchanged during the next two years. In 1926 it decreased by 18 per cent, owing to a sharp decline in the price of cotton and more moderate decreases in the prices of other agricultural commodities. None of the groups of agricultural exports increased in price during 1926, and only one—dairy products and eggs—remained the same.

Chart X.—AGRICULTURAL EXPORTS BY CLASSES—ACTUAL VALUES

NOTE.—Figures for 1910–1914 average are for fiscal years, calendar years thereafter.



Tobacco Exports.

While figures relating to tobacco exports are misleading, they have been included in Table 24. The reason is that until very recent years no classification of tobacco exports according to type was made. It is generally known that a marked shift has taken place in the character of tobacco exported, the cigarette types, which are of much higher average value per pound than most others, having become relatively far more important than before. As a consequence an average unit value for tobacco, obtained simply by dividing the aggregate value by the aggregate quantity, shows an increase per pound as compared with pre-war years far greater than the actual advance in the price of tobacco of a given grade. Conversely, the increase in the aggregate weight of tobacco exported materially understates the true gain in the importance of tobacco exports from the quantitative standpoint. In most recent years the actual quantity of tobacco exported has been considerably higher than before the war, quite apart from the fact that the average quality has also risen.

Exports of Cereals.

Table 25 presents comparative export statistics for individual cereals. The figures are for calendar years, and therefore bring out the effect of changes in supply and demand less clearly than crop-year data.

Table 25.—Domestic Exports of Cereals, by Years

NOTE.—Wheat flour converted to grain equivalent on basis of 4½ bushels to the barrel. Figures for corn and rye include grain equivalent of flour and meal made from these grains. Barley figures cover grain only.

Calendar year	Quantity (thousands of bushels)					
	Wheat grain	Wheat flour [1]	Wheat and flour	Corn	Rye	Barley
1910–1914 [2]	56, 913	10, 679	104, 967	41, 409	888	7, 896
1921–1925	159, 222	15, 049	226, 942	75, 452	35, 128	24, 850
1920	218, 287	19, 854	307, 630	21. 230	59, 253	17, 854
1921	280, 058	16, 801	355, 661	132, 186	30, 146	25, 834
1922	164, 692	15, 025	232, 302	166, 131	47, 600	18, 781
1923	98, 533	16, 310	171, 928	44, 685	32, 016	11, 983
1924	166, 302	15, 990	238, 256	20, 106	36, 981	20, 712
1925	86, 526	11, 119	136, 561	14, 154	28, 895	29, 059
1926	138, 275	11, 850	191, 601	25, 130	12, 035	13, 586
Per cent change:						
1921–1925 from 1910–1914	+179. 8	+40. 9	+116. 2	+82. 2	+3, 855. 9	+214. 7
1926 from 1925	+59. 8	+6. 6	+40. 3	+77. 6	−58. 3	−53. 2
	Value (thousands of dollars)					
1910–1914 [2]	55, 063	51, 127	106, 190	26, 582	620	5, 073
1921–1925	228, 342	93, 522	321, 864	57, 884	39, 475	18, 792
1920	596, 975	224, 472	821, 447	33, 932	125, 878	27, 165
1921	433, 053	117, 698	550, 751	96, 461	44, 589	20, 687
1922	206, 338	85, 483	291, 821	117, 211	46, 075	13, 749
1923	116, 490	88, 151	204, 641	39, 433	29, 021	9, 322
1924	237, 114	91, 210	328, 324	20, 052	40, 204	23, 273
1925	148, 717	85, 067	233, 784	16, 263	37, 484	26, 930
1926	201, 739	83, 133	284, 872	22, 339	12, 379	10, 371
Per cent change:						
1921–1925 from 1910–1914	+314. 7	+82. 9	+203. 1	+117. 8	+6, 266. 9	+270. 4
1926 from 1925	+35. 7	−2. 3	+21. 9	+37. 4	−67. 0	−61. 5

[1] Thousands of barrels.

[2] Fiscal years.

Source: Bureau of Foreign and Domestic Commerce.

On the average from 1921 to 1925 exports of all the major grains were much greater than in the immediate pre-war period; those of wheat and flour having more than doubled, those of barley having trebled, and those of rye having multiplied almost fortyfold. Corn exports in each of the last three years have been lower than before the war. The quantities of wheat and flour and of corn shipped in 1926 were considerably larger than in 1925, while shipments of rye and barley were less than one-half as great.

Chart XI.—EXPORTS OF PRINCIPAL CEREALS

NOTE.—Figures for 1910–1914 average are for fiscal years, calendar years thereafter.

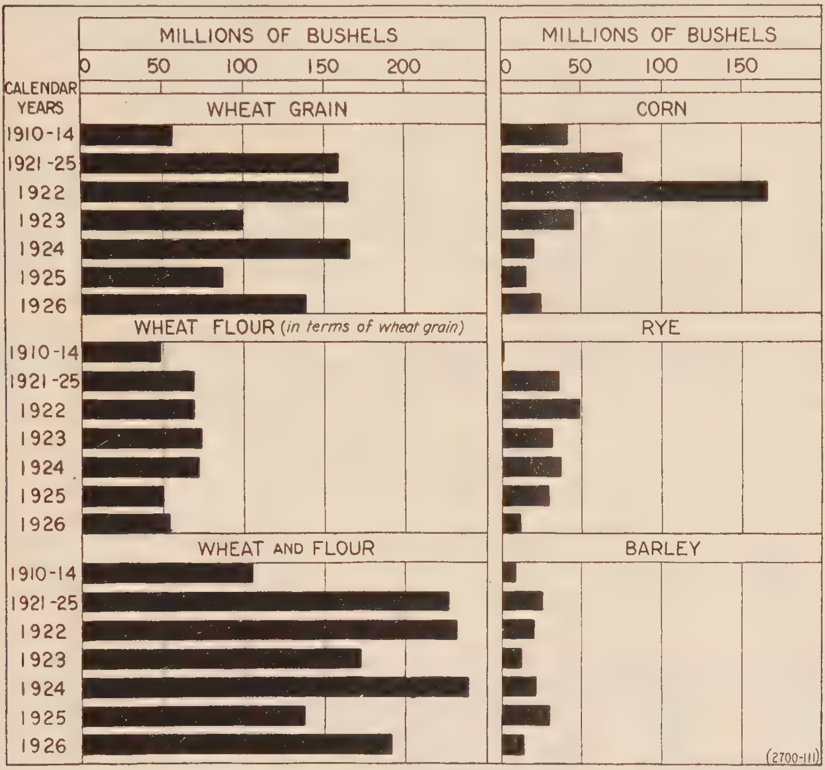


Table 26.—Domestic Exports of Cereals, by Quarters

[See headnote Table 25]

Year and quarter	Quantity (thousands of bushels)					
	Wheat grain	Wheat flour [1]	Wheat and flour	Corn	Rye	Barley
1924						
January–March	10,474	4,680	31,536	10,586	1,588	1,882
April–June	11,533	3,188	25,879	5,020	7,878	1,667
July–September	53,545	3,201	67,950	2,238	14,408	5,416
October–December	90,750	4,920	112,891	2,262	13,106	11,748
1925						
January–March	25,832	3,310	40,728	2,495	4,559	3,280
April–June	25,363	2,465	36,455	2,796	18,169	3,209
July–September	22,586	2,450	33,613	2,933	5,884	16,105
October–December	12,745	2,893	25,765	5,930	283	6,464
1926						
January–March	7,882	2,018	16,965	10,013	751	1,530
April–June	19,975	2,180	29,784	5,907	5,729	3,081
July–September	68,866	3,715	85,586	3,574	4,643	5,577
October–December	41,551	3,937	59,267	5,636	913	3,398

[1] Thousands of barrels.

Source: Bureau of Foreign and Domestic Commerce.

The quarterly figures for cereal exports during the past three years show great variations, partly of a seasonal character, and partly owing to sharp changes in harvests and conditions of supply and demand. (Table 26.) Exports of wheat and wheat flour were smaller in the first half of 1926 than in either of the two preceding years. Shipments in the last half of the year exceeded those in the latter part of 1925, when the harvest was very small, but were not as large as in the corresponding period of 1924. Corn exports were much larger in the first three quarters of 1926 than in the corresponding periods of 1925 and were only slightly smaller in the last quarter. Exports of rye and barley, on the other hand, were smaller throughout most of 1926 than in the corresponding periods of either of the two previous years.

In order to compare the export of grain with domestic production, it is necessary to consider exports by crop years rather than by calendar years, and also to deduct imports. (Table 27.)

Table 27.—Net Exports of Major Cereals: Grain and Grain Equivalent of Flour Meal, and Malt

Yearly average or year beginning July 1—	Net exports [1] (thousands of bushels)						Per cent of domestic production [2]				
	Total, 5 grains	Wheat	Corn	Oats	Barley	Rye	Wheat	Corn	Oats	Barley	Rye
1910-1913	155, 221	103, 159	38, 744	4, 303	8, 127	888	14. 9	1. 4	0. 4	4. 4	2. 5
1920	455, 455	308, 681	65, 162	5, 595	28, 682	47, 337	37. 1	2. 0	. 4	15. 1	78. 3
1921	519, 589	262, 155	179, 366	19, 503	28, 621	29, 944	32. 2	5. 8	1. 8	18. 5	48. 6
1922	397, 227	201, 293	96, 462	25, 120	22, 689	51, 663	23. 3	3. 3	2. 1	12. 5	50. 0
1923	190, 228	128, 383	22, 907	4, 552	14, 482	19, 902	16. 1	. 8	. 4	7. 3	31. 6
1924	299, 277	251, 824	5, 174	13, 736	28, 543	50, 242	29. 1	. 2	. 9	15. 7	76. 7
1925	190, 677	90, 466	24, 147	39, 502	23, 915	12, 647	13. 4	. 8	2. 7	11. 0	27. 2
July 1 to Dec. 31, 1925	114, 853	48, 537	8, 427	27, 534	24, 188	6, 167	-------	------	------	------	------
July 1 to Dec. 31, 1926	167, 031	135, 502	8, 354	7, 278	10, 342	5, 555	-------	------	------	------	------

[1] Exports are for 12 months beginning July 1 of the year specified. Net exports represent domestic exports minus imports.

[2] Based on Department of Agriculture estimates of production.

Source: Bureau of Foreign and Domestic Commerce.

The total net exportation of the five principal grains from the crops of 1910 to 1913 averaged 155,000,000 bushels annually. The average for postwar years is conspicuously higher than for this pre-war period, but the exports of the years 1923–24 and 1925–26 while somewhat higher than the pre-war average, were much lower than in other recent years. In each of those two years exports of the five principal grains amounted only to about 190,000,000 bushels. The great decline in the wheat and rye production of 1925 accounted mainly for the decrease in cereal exports during 1925–26. Wheat exports were about one-seventh of our total wheat production in the years immediately preceding the war, while in 1925–26 they only constituted one-tenth of the total output. The exportation of corn is small compared with the production, the importance of that crop as contributing to our agricultural exports being reflected rather in the shipments of pork products, a large fraction of the corn crop being fed to hogs. A very great proportion of the rye crop, on the other hand, is exported.

For reasons already stated Table 28, showing the destination of cereal exports (for destination of wheat and flour exports see Table 34), is more or less misleading because of indirect shipments through Canada. The United Kingdom and Germany are the principal ultimate markets for barley; Germany is the most important market for rye, while the exports of corn—much reduced during the last three years—are now rather widely distributed among the countries of Europe and Latin America.

Table 28.—Domestic Exports of Barley, Rye, Corn, and Products, by Principal Countries of Destination

NOTE.—Quantity in thousands; grain and malt, bushels; flour and corn meal, barrels; hominy and grits and other corn preparations for table use, pounds; calendar years.

Commodity and country	1923	1924	1925	1926
Barley	11,983	20,712	29,059	13,586
United Kingdom [1]	10,963	11,193	10,753	8,529
Germany	112	4,756	6,538	1,205
Malt	3,224	3,946	4,704	3,316
Rye	30,850	35,666	28,675	11.941
Europe	24,828	12,004	19,277	3,744
United Kingdom [1]	887	142	257	314
Denmark	1,007	591	559	522
Germany	11,509	4,290	6,175	588
Netherlands	5,330	2,685	3,189	810
Norway	4,233	1,882	2,206	1,215
Sweden	493	664	331	-------
Canada [2]	6,005	23,661	9,394	8,175
Rye flour	194	219	37	16
Corn	42,188	18,366	12,762	23,064
Europe	29,182	8,834	2,029	6,628
United Kingdom [1]	9,975	3,970	808	2,117
Denmark	2,441	775	269	773
Germany	5,491	698	224	520
Netherlands	7,177	2,218	719	2,855
Canada [2]	9,773	6,031	5,759	9,585
Mexico	129	789	2,413	4,212
Cuba	2,746	2,456	2,233	1,954
Corn meal and flour	624	435	348	516
Hominy and grits	49,382	29,893	20,055	30,141
Other corn preparations for table use	5,473	6,953	7,923	10,367

[1] Includes Irish Free State in 1923 and 1924.

[2] For the most part in transit for Europe.

Source: Bureau of Foreign and Domestic Commerce.

WORLD PRODUCTION OF MAJOR CROPS

Table 29 shows the production in the principal individual countries of most of the major cereals and of potatoes.

Production of wheat in the world as a whole was 12 per cent greater in 1926 than the average of the years 1910–1913, while output of other grain crops was either about the same size or slightly smaller than before the war. The United States normally produces over one-fifth of the world's wheat, one-third of the oats, and two-thirds of the corn, but the proportion for barley, potatoes, and rye is very much lower. Rye is more important than wheat in Germany, Russia, Poland, Austria, and Czechoslovakia. Potatoes are an immensely important crop in these same countries, as well as in France; they are used more for human consumption than in this country and far more for animal food and for conversion into starch and alcohol. Corn is not a very important crop except in the United States, Argentina, Italy, Russia, Hungary, and the Balkan States.

Table 29.—Production of Cereals and Potatoes in Principal Countries

[In millions of bushels]

Country	Wheat			1926				
	1909–1913, average	1925	1926	Rye	Corn	Oats	Barley	Potatoes
World total	**3,799.9**	**4,113.1**	**4,250.7**	**[1]1,714.3**	**[1]4,499.9**	**31.5**	**[1]1,706.2**	(2)
United States	690.1	676.4	832.3	40.0	2,645.0	1,253.7	191.2	356.4
Per cent of world total	18.2	16.4	19.6	2.3	58.8	27.1	11.2	(2)
Canada	197.1	411.4	409.8	12.0	7.8	404.6	103.7	81.1
Argentina	147.1	191.1	220.8	3.3	295.3	71.7	19.3	(2)
Australia	90.5	113.4	164.0	(2)	(2)	(2)	(2)	(2)
British India	351.8	331.0	324.9	--------	(2)	(2)	(2)	4.1
Union of South Africa	6.0	8.3	8.0	(2)	68.4	9.4	1.4	(2)
Germany	131.3	118.2	95.4	252.2	--------	435.7	113.1	1,103.4
France	325.6	330.3	248.6	33.3	12.9	397.9	54.0	384.3
Spain	130.4	162.6	157.3	27.0	16.9	43.7	95.0	112.0
Italy	184.4	240.8	220.6	6.5	118.1	40.6	11.0	84.9
United Kingdom	59.6	53.7	51.6	--------	--------	156.3	48.3	84.6
Russia in Europe and Asia	758.9	713.1	809.7	897.3	145.9	903.5	260.2	(2)
Poland	63.7	57.9	47.1	197.3	4.2	210.1	71.4	914.1
Bulgaria	37.8	49.6	41.1	8.0	29.0	7.4	12.0	1.8
Austria	12.8	10.7	10.0	19.4	4.0	31.3	9.9	81.3
Hungary	71.5	71.7	69.2	30.0	78.8	23.9	22.7	67.3
Czechoslovakia	37.9	39.3	35.7	49.7	10.8	90.1	51.3	233.8
Yugoslavia	62.0	78.6	71.4	7.4	147.7	24.6	17.3	[3]37.3
Rumania	158.7	104.7	110.9	11.2	224.5	79.9	77.4	73.5

[1] Exclusive of China.
[2] Not yet available.
[3] Unofficial estimate.

Source: Bureau of Agricultural Economics, Department of Agriculture.

WHEAT AND FLOUR

SUMMARY.—Wheat acreage, which had been declining since 1919, showed a gain of 8 per cent in 1926. The area planted to wheat last year was one-fifth greater than in the period immediately preceding the war, but was considerably smaller than the average for the war years. The yield per acre was 14.7 bushels in 1926, which was substantially greater than in 1925, and was also higher than in any other recent year except 1924. As a result of the larger acreage and the higher yield, the wheat crop totaled 832,000,000 bushels, which was 23 per cent more than in 1925, and was also slightly larger than the average for the period 1921–1925. Despite the increased output of wheat in 1926 the farm value was only slightly higher, as there was a decline of about 15 per cent in the farm price. In 1926 the farm price averaged about $1.20 per bushel, which was lower than in either 1924 or in 1925, but was higher than in the three preceding years. Exports of wheat during the first nine months of the crop year 1926–27 were over twice as large as in the corresponding period a year earlier, but were slightly smaller than in most other recent years.

Table 30.—Acreage, Production, and Exports of Wheat

NOTE.—Exports include flour in terms of grain, and are for 12 months beginning July 1 of year specified.

Yearly average or year	Area	Production	Farm value, Dec. 1	Yield per acre	Farm price, Dec. 1	Exports (domestic)	
						Quantity	Per cent of crop
	1,000 acres	*1,000 bushels*	*1,000 dollars*	*Bushels*	*Cents per bushel*	*1,000 bushels*	
1866–1875	20,470	244,672	257,587	12.0	105.3	50,535	20.7
1876–1885	34,433	425,054	391,104	12.3	92.0	127,469	30.0
1886–1895	37,500	476,788	321,071	12.7	67.3	143,076	30.0
1896–1900	48,989	633,074	415,922	12.9	65.7	197,427	31.2
1901–1905	50,194	700,220	501,277	14.0	71.6	140,026	20.0
1906–1910	45,766	674,993	579,535	14.7	85.9	116,138	17.2
1911–1915	51,910	806,361	705,890	15.5	87.5	188,748	23.4
1916–1920	58,685	799,083	1,491,445	13.6	186.6	241,899	30.3
1921–1925	58,092	804,151	889,049	13.8	110.6	204,382	25.4
1919	75,694	967,979	2,080,056	12.8	214.9	219,865	22.7
1920	61,143	833,027	1,197,263	13.6	143.7	366,077	43.9
1921	63,696	814,905	754,834	12.8	92.6	279,407	34.3
1922	62,317	867,598	873,412	13.9	100.7	221,923	25.6
1923	59,659	797,394	736,006	13.4	92.3	156,430	19.6
1924	52,535	864,428	1,123,086	16.5	129.9	258,024	29.8
1925	52,255	676,429	957,907	12.9	141.6	106,127	15.7
1926	56,526	832,305	997,589	14.7	119.9	[1] 175,281	(2)
Per cent change 1926 from:							
1909–1913	+20.0	+20.6	+68.6	----------	+39.9	(2)	(2)
1925	+8.2	+23.0	+4.1	+14.0	−15.3	(2)	(2)

[1] Total for nine months ending March, 1927; corresponding figures for 1926, 76,342,778 bushels.
[2] Not available.

Sources: Bureau of Agricultural Economics, Department of Agriculture; exports from Bureau of Foreign and Domestic Commerce, Department of Commerce.

Acreage and Production of Wheat.

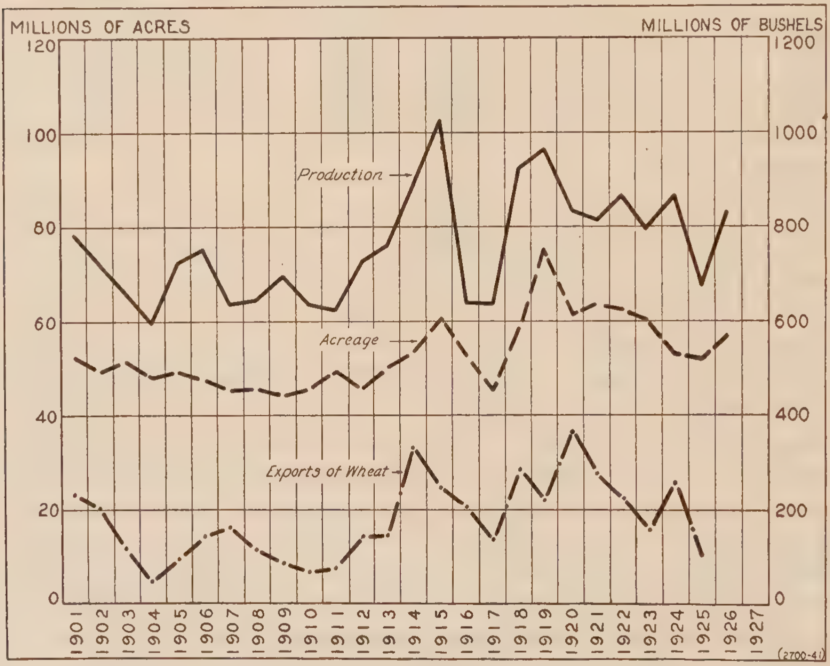
The value of the exports of wheat and wheat products usually constitutes more than one-half of the total value of all grains and grain products exported. This is significant in view of the fact that the acreage devoted to wheat is only about one-fourth of the total for all grains, and the production of wheat is not usually more than one-fifth of the total for all cereal crops. In the years prior to 1850 corn was considerably more important than wheat in our foreign trade. In almost every year since that time exports of wheat have surpassed those of corn in both quantity and value. Corn, however, continues to be the most important cereal crop of the United States with an average output almost four times as great as wheat and a farm value about twice as great. Wheat ranks second of our cereal crops according to farm value.

The wheat acreage in 1919 was much the largest ever planted in this country, aggregating almost 76,000,000 acres, while production was somewhat less than in the record year 1915. Had the yield per acre in 1919 equaled that in 1915 a wheat crop of almost 1,300,000,000 bushels would have been produced, and that is probably our maximum productive capacity for wheat until more land is brought under wheat cultivation. From 1919 to 1925 the acreage planted to wheat showed a generally declining tendency but in 1926 there was an increase of 4,300,000 acres in the area harvested. The wheat acreage harvested during recent years shows a smaller growth as compared with pre-war years than the increase in the population of the United States.

The average yield per acre of wheat in 1926 was 14.7 bushels, which was about one-seventh more than in 1925 and was also larger than in any other recent year except 1924. The total crop production increased 23 per cent and amounted to 832,000,000 bushels. It was 21 per cent greater than the average output for the years 1909 to 1913 but was slightly smaller than in several of the more recent years.

Chart XII.—WHEAT: ACREAGE, PRODUCTION, AND EXPORTS

NOTE.—Exports are for 12 months beginning July 1 of year specified.



Flour Production and Consumption.

The flour milling industry in the United States, as in many other countries, has been developed to a capacity far in excess of domestic requirements. According to commercial estimates the average annual output of flour mills is not much more than half of their capacity.

The total value of products of the flour milling industry in 1925 was $1,298,000,000 which places it among the leading American manufacturing industries from this point of view. Table 31 indicates that the total value of flour production increased 24 per cent in 1925 as compared with 1923. Almost seven-eighths of the value of products in 1925 were represented by the cost of materials and consequently the milling industry is not nearly as important as many other industries in the value added to its products and the number of its workers. Every census since 1919 has shown a decrease both in the number of reporting establishments and in the number of workers in the flour industry.

Wheat in 1925 constituted about three-fourths of the total quantity of grain handled by flour mills. Wheat, moreover, is milled chiefly for human consumption and the amount of flour produced in 1925 totaled over 114,000,000 barrels. The amount of wheat ground in 1925 was slightly in excess of 530,000,000 bushels, which was less than in 1923, but only 4.65 bushels were needed to produce a barrel of flour in 1925 as compared with 4.70 bushels of wheat in 1923. The amount of corn milled in 1925 was less than in any other census year of the present century, being only about half as much as in 1909, and the quantity of corn meal and flour produced showed an even greater relative-decline.

Table 31.—Flour Milling Industry

Item	Merchant and custom mills, 1889	Merchant mills						
		1899[1]	1909	1914	1919	1921[2]	1923[2]	1925[2]
Number of mills	18,470	9,476	11,691	10,788	10,708	6,485	5,232	4,413
Average number of wage earners	47,403	32,226	39,453	39,718	45,481	35,378	35,194	31,988
Horsepower	752,365	[3]670,719	850,284	821,406	875,464	(4)	709,856	(4)
		In thousands of dollars						
Cost of all materials	434,152	428,117	767,576	752,270	1,799,181	993,810	885,971	1,125,379
Value of products	513,971	501,396	883,584	877,680	2,052,434	1,179,740	1,048,577	1,298,015
Value added by manufacture	79,819	73,280	116,008	125,410	253,253	185,930	162,606	172,636
		In thousands of bushels						
GRAIN GROUND								
Total	627,016	729,062	806,248	818,929	830,026	713,593	743,235	707,958
Wheat	385,750	471,307	496,480	545,728	612,562	521,234	538,312	530,593
Corn	166,293	180,573	209,281	180,116	113,761	122,168	125,194	105,355
Rye	12,140	10,088	11,504	12,814	15,952	7,708	9,246	8,126
Buckwheat	7,032	5,490	7,156	5,478	4,765	3,686	2,938	2,408
Barley	8,696	10,067	24,510	20,288	21,151	(5)	(5)	(5)
Oats	47,104	47,176	50,242	50,227	58,580	41,080	49,310	45,818
Other grains		4,360	7,075	4,278	3,255	17,718	18,235	15,658
		In thousands of barrels (196 pounds per barrel)						
PRODUCT								
Wheat flour	80,949	99,764	105,757	116,404	132,466	110,846	114,439	114,156
Corn meal and flour	36,898	27,839	21,553	16,328	10,683	10,932	12,155	8,903
Rye flour	2,137	1,443	1,532	1,937	2,528	1,335	1,635	1,561
Buckwheat flour	921	731	898	641	460	334	251	243

[1] For merchant and custom mills together, in 1899, the value of products was $560,719,000; merchant mills representing 89 per cent of the total, a proportion which has undoubtedly risen since that time.

[2] Excludes data for establishments reporting products under $5,000 in value; this change in basis in part accounts for the decline in the number of mills and of wage earners, but has relatively little effect on the comparability of the other data.

[3] Figures are not strictly comparable with later years because of the inclusion in this year and the exclusion in later years of data for rented power other than electric.

[4] Data not available.

[5] Included in other grains.

Source: Bureau of the Census.

Annual estimates of flour production are issued by various unofficial agencies but often show marked differences from the census statistics as they include data for establishments which are not classified as flour mills by the Census Bureau. In Table 32 census data for production are shown when available, while private estimates are included for the years in which no census was taken. Flour production has been quite constant in the years since the war, although there were peaks in 1919 and 1924. Per capita consumption has been remarkably steady in the United States since 1919, varying only from 172 pounds to 184 pounds. Consumption is, however, perceptibly less than a few decades ago, as the higher standard of living has resulted in demand for a greater variety of food. Exports have shown a declining tendency since 1919 and were smaller in the past two years than at any other time in the last decade. In the past five years exports of flour averaged about one-eighth of the total output, but the proportion was considerably smaller in 1925 and 1926.

Table 32.—Wheat Flour: Estimated Production and Consumption

Calendar year	Production [1]	Domestic exports	Imports	Approximate consumption [2]	Exports, per cent of production	Per capita consumption
	1,000 bbls.	*1,000 bbls.*	*1,000 bbls.*	*1,000 bbls.*	*1,000 bbls.*	*Barrels*
1914	116,436	12,769	79	(3)	11.0	(3)
1915	112,056	15,662	244	(3)	14.0	(3)
1916	119,028	14,379	186	(3)	12.1	(3)
1917	117,780	13,926	642	(3)	11.8	(3)
1918	111,804	21,707	167	(3)	19.4	(3)
1919	132,465	26,450	17	97,251	19.9	0.93
1920	109,752	19,854	801	98,844	18.1	.93
1921	110,846	16,801	966	95,011	15.1	.88
1922	114,798	15,025	694	100,477	13.1	.91
1923	114,439	16,310	268	98,397	14.2	.88
1924	122,075	15,990	65	106,150	13.1	.94
1925	114,156	11,119	11	103,048	9.8	.90
1926	117,475	11,850	10	105,635	10.1	.91

[1] The production figures were obtained as follows: The years 1915 to 1918 and 1920 from commercial reports; 1922, 1924, and 1926, estimated on basis of the ratio which commercial figures bear to census figures, and monthly figures bear to the Biennial Census; others Biennial Census.

[2] Takes no account of shipments to Alaska, Hawaii, and Porto Rico, nor of reexports of imported flour, both factors of minor importance; for 1918 and 1919 adjustments are made for carry-over at end of year.

[3] Comparable figures not available.

Sources: United States Grain Corporation; Northwestern Miller; Russell's Commercial Review; Bureau of Foreign and Domestic Commerce, and Bureau of the Census, Department of Commerce.

Prices and Market Conditions.

The movements of the price of wheat have already been shown in connection with those of other cereals. (Tables 15, 17, 18, and 19.) For convenience recent monthly prices are here repeated. (Table 33.) This table indicates that prices in the first half of the year are usually appreciably higher than in the second half. In 1924, however, prices of spring wheat increased substantially in the latter part of the year on account of the decreases in European and Canadian wheat crops. The price of wheat in the United States is much affected by foreign conditions of supply and demand. During the war, owing to reduced production in Europe and the exclusion of Russia as a source of supply, wheat in central markets rose even faster than commodities in general and reached in 1920 a price more than three times the pre-war average. The subsequent decline was extraordinarily rapid and great, and for three years wheat prices ranged only from 10 to 40 per cent above pre-war levels as compared with the range for the general index of commodity prices of from 45 to 55 per cent above pre-war averages. The crop of the United States during 1924 was much larger than the average, but small harvests in Europe and in Canada caused wheat prices to advance rapidly in the latter half of the year.

Table 33.—Central Market Prices of Wheat and Flour

NOTE.—The grades and markets covered are as follows: Wheat, No. 1 northern spring, Minneapolis, wheat, No. 2 red winter, Chicago; flour, spring patent, Minneapolis.

Month	Spring wheat (per bushel)						Winter wheat (per bushel)					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	$1.79	$1.34	$1.23	$1.19	$1.89	$1.73	[1]$1.96	$1.21	$1.30	$1.13	$1.95	$1.88
February	1.72	1.51	1.26	1.21	1.87	1.67	1.85	1.34	1.35	1.13	2.00	1.83
March	1.66	1.51	1.24	1.21	1.71	1.61	1.65	[1] 1.38	1.31	1.09	1.91	1.71
April	1.53	1.58	1.30	1.21	1.50	1.64	1.41	1.40	1.32	1.06	1.66	1.68
May	1.57	1.61	1.28	1.22	1.67	1.62	1.67	1.34	1.28	1.07	1.89	1.65
June	1.69	1.49	1.17	1.25	1.64	1.63	1.47	1.18	1.16	1.15	1.87	1.48
July	1.67	1.49	1.12	1.37	1.59	1.72	1.24	1.14	1.00	1.29	1.59	1.45
August	1.48	1.11	1.18	1.31	1.64	1.49	1.22	1.07	1.00	1.31	1.68	1.37
September	1.51	1.10	1.21	1.30	1.50	1.43	1.29	1.06	1.05	1.31	1.67	1.34
October	1.34	1.15	1.20	1.46	1.49	1.49	[1] 1.18	1.18	1.11	1.53	1.63	1.39
November	1.25	1.23	1.14	1.48	1.55	1.46	[1] 1.23	1.27	1.06	1.55	1.70	1.38
December	1.31	1.25	1.16	1.66	1.69	1.46	[1] 1.18	1.33	1.09	1.80	1.80	1.40

Month	Flour (per barrel)					Month	Flour (per barrel)				
	1922	1923	1924	1925	1926		1922	1923	1924	1925	1926
January	$7.33	$6.71	$6.44	$9.80	$9.85	July	$7.95	$6.21	$7.72	$8.78	$9.27
February	8.17	6.72	6.51	10.02	9.46	August	7.22	6.37	7.69	9.40	8.50
March	8.27	6.72	6.49	9.34	9.19	September	6.68	6.45	7.52	8.52	7.87
April	8.46	7.00	6.56	8.54	9.20	October	6.76	6.43	8.19	8.52	8.08
May	8.32	6.80	6.83	9.12	9.00	November	6.88	6.21	8.22	8.81	7.85
June	7.71	6.35	7.12	8.86	9.32	December	6.86	6.30	9.03	9.52	8.02

[1] Based on small number of sales.

Source: Bureau of Agricultural Economics, Department of Agriculture.

The 1925 wheat crop of the United States was unusually small, but production in other countries increased and there was comparatively little change in the average price of wheat after the harvest. Prices for winter wheat at Chicago ranged from $1.65 per bushel to $1.88 in the period from November, 1925, to May, 1926, inclusive. As the prospects for a larger 1926 crop in the United States became fairly certain quotations declined to $1.34 in September. There was a slight advance during the last quarter and prices of winter wheat in December, 1926, averaged $1.40 as compared with $1.80 in December of each of the two preceding years. Quotations for spring wheat showed a less marked decline than those for winter wheat in 1926 and averaged $1.46 per bushel at Minneapolis in December as compared with $1.69 a year earlier.

The price of flour showed movements roughly parallel to those of wheat, although the variations are a little less violent.

Wheat Exports and Foreign Market Conditions.

Comparisons of the exports of wheat and flour with those of other cereals have been presented elsewhere. (Tables 25 and 26.) During the period from 1875 to 1900 exports of wheat (including flour in terms of wheat) averaged about 30 per cent of the crop. (Table 30.) With the growth of population and an approximately stationary wheat acreage, this proportion declined, and from 1906 to 1910 only about one-sixth of the crop was exported. Stimulated by the war, wheat exports were greatly expanded and reached a maximum in the crop year 1920–21, when 366,000,000 bushels were exported, or nearly four-ninths of the entire production. Exports declined considerably during the next three crop years, but more than 258,000,000 bushels were exported from the large crop of 1924, as crops of many foreign countries were smaller during that year. Our wheat harvest was poor in 1925, and exports for the crop year were smaller than in any year since 1911–12. As the harvest was much larger in 1926, exports again expanded, and during the current crop year have been more than twice as large as a year earlier. About nine-tenths of the exports during 1910–1914 went to European destinations, but this proportion has shown a considerable decline in recent years. As we have very large indirect shipments to Europe via Canada, the changes in our actual exports of wheat to various European countries can not be accurately determined. The United Kingdom is the largest market for direct shipments of wheat from the United States as well as for shipments through Canada. In 1926 the Netherlands was the next largest European buyer, but a good deal of the wheat shipped from that country into Belgium ultimately goes to Germany.

Of our flour exports in 1926 about 42 per cent went to Europe. This was about the same proportion as was exported to Europe in the pre-war years, but is a much smaller proportion than the average for the five years 1921–1925. Exports to the United Kingdom, Netherlands, and Scandinavia increased during 1926, while direct exports to Germany declined. Flour exports to Latin American countries were larger during the past year although shipments to Cuba were smaller. Almost 1,000,000 barrels of flour were shipped to Brazil, which is much larger than in other recent years, and there were also greater exports to other South American countries. Exports of flour to China increased during 1926 despite the disturbed political conditions in that country, but shipments to Japan showed a further decline and were almost negligible in amount. Special interest attaches to the data of wheat production and trade of the principal exporting and importing countries.

Table 34.—Exports of Wheat and Flour from the United States, by Grand Divisions and Principal Countries

[Wheat in thousands of bushels, wheat flour in thousands of barrels]

Destination	1910–1914,[1] average	1921–1925, average	1925	1926
Wheat, grain	**56, 913**	**159, 222**	**86, 526**	**138, 165**
Europe	50, 486	115, 054	61, 668	92, 745
United Kingdom [2]	21, 806	34, 580	17, 100	37, 897
France	3, 002	8, 497	7, 946	8, 925
Netherlands	8, 351	12, 947	5, 993	14, 710
Belgium	7, 195	12, 250	7, 490	6, 696
Germany	6, 155	11, 811	2, 504	6, 877
Italy	2, 367	27, 279	14, 360	8, 401
Canada [3]	1, 776	29, 904	18, 853	26, 327
Japan	2, 338	7, 065	3, 673	8, 006
Wheat, flour	**10, 679**	**15, 049**	**11, 119**	**11, 850**
North America	2, 450	2, 846	2, 692	2, 704
Cuba	856	1, 126	1, 198	1, 146
Haiti	234	266	239	279
Mexico	31	335	201	206
British West Indies	473	235	183	154
Central America	508	540	561	580
Wheat, flour—Con.				
South America	1, 151	941	1, 312	1, 671
Brazil	567	508	757	988
Europe	4, 605	7, 789	5, 066	5, 003
United Kingdom [2]	2, 713	2, 204	1, 210	1, 439
Netherlands	819	1, 325	907	1, 225
Germany	187	1, 483	1, 085	657
Finland	[4] 305	522	432	452
Scandinavia	501	586	443	641
Greece	1	353	361	348
Asia and Oceania	2, 348	3, 036	1, 567	1, 819
China	264	997	220	506
Hong Kong	1, 121	786	393	436
Kwangtung	32	394	286	165
Philippine Islands	279	488	564	610
Africa	124	436	481	654
British Africa	67	112	150	149
Egypt	39	202	258	359

[1] Fiscal years; others calendar.

[2] Includes Irish Free State previous to 1925.

[3] For the most part in transit for Europe.

[4] Four-year average, 1911–1914.

Source: Bureau of Foreign and Domestic Commerce.

Table 35.—Production of Wheat and Exports or Net Imports of Wheat (Including Flour in Terms of Wheat) for the Leading Countries

NOTE.—Exports and imports for all countries are for the period of 12 months, beginning in year specified, except for Argentina and Australia, when the year begins Jan. 1, following the year specified. The other named countries are as follows: India, Apr. 1; United States, July 1; all other countries, Aug. 1. Crop production is that harvested in the summer of the year specified except for Argentina and Australia, where harvests are six months later. Exports for the United States are less imports, for others, gross exports.

[In thousands of bushels]

Country	Production, year beginning—					Exports, crop year beginning—			
	1909–1913	1921–1925	1924	1925	1926	1909–1913	1921–1925	1924	1925
EXPORTING COUNTRIES									
Total	2, 243, 124	2, 278, 360	2, 294, 493	2, 481, 531	2, 876, 031	614, 913	731, 389	749, 139	634, 843
United States	690, 108	804, 151	864, 428	676, 429	832, 305	103, 159	186, 824	251, 824	90, 466
Canada	197, 119	369, 663	262, 097	411, 376	409, 008	96, 625	265, 294	192, 722	324, 592
Argentina	147, 059	203, 233	191, 138	191, 139	222, 850	95, 239	132, 236	113, 710	79, 191
Australia	90, 497	127, 006	164, 042	107, 449	164, 000	49, 713	83, 555	119, 779	72, 072
India	351, 841	335, 913	360, 640	329, 400	325, 000	51, 456	19, 943	45, 518	10, 323
Rumania	[1] 158, 672	89, 544	70, 421	104, 608	113, 868	54, 430	26, 033	12, 050	34, 599
Russia in Europe	[1] 607, 828	348, 652	381, 727	661, 130	809, 000	164, 291	[2] 17, 504	[2] 13, 536	[2] 23, 600
IMPORTING COUNTRIES						Net imports			
Total	727, 448	673, 277	616, 685	771, 416	657, 770	460, 568	461, 194	505, 710	421, 791
United Kingdom [3]	59, 640	57, 581	52, 664	54, 700	52, 667	216, 803	205, 646	210, 552	187, 893
France	[1] 325, 644	290, 522	281, 179	329, 082	248, 605	43, 662	36, 314	42, 425	22, 962
Germany	[1] 131, 274	98, 715	89, 199	118, 203	112, 192	68, 075	59, 926	85, 634	77, 250
Italy	[1] 184, 393	198, 308	170, 144	240, 849	218, 623	53, 100	88, 546	88, 353	67, 933
Belgium	15, 199	13, 111	13, 004	14, 064	12, 200	50, 103	38, 202	40, 287	30, 533
Netherlands	4, 976	6, 253	4, 631	5, 700	4, 665	22, 267	25, 885	31, 024	28, 520
Denmark	6, 322	8, 787	5, 864	9, 748	8, 818	6, 558	6, 675	7, 435	6, 700

[1] Adjusted to present boundaries.

[2] From Broomhall.

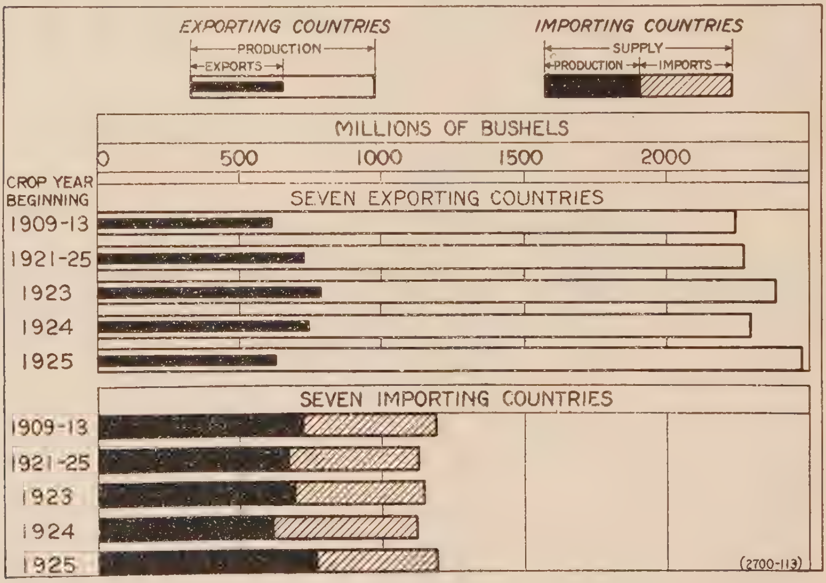
[3] Includes Irish Free State previous to 1925.

Sources: Production, Bureau of Agricultural Economics, Department of Agriculture. Imports and exports from official reports of countries mentioned, and International Institute of Agriculture.

Table 35 shows the production and exports of the principal exporting countries and the net imports of importing countries for the 12 months' period following the harvest. The crop years for Argentina and Australia, which are located in the Southern Hemissphere, commence on January 1; the crop year for India begins on April 1, and the crop years for practically all other important producing countries begin in July or August. Incomplete export and import figures for the crop year 1926–27 are included in this table.

In comparing production figures it should be borne in mind that rye is a very important bread grain in Russia, Germany, Poland, and the Scandinavian countries, being practically twice as large as the wheat crop. In recent years Russia has exported more rye than wheat, though before the war much more wheat was shipped from that country.

Chart XIII.—**WHEAT: PRODUCTION, EXPORTS, AND IMPORTS OF PRINCIPAL COUNTRIES, AS GROUPS**



The average wheat production of the seven principal exporting countries during 1921–1925, shown in Chart XIII, was 2,278,000,000 bushels or 35,000,000 bushels more than in the years immediately preceding the war. These countries exported, however, in the years 1921–1925, 731,000,000 bushels which was almost 20 per cent more than in the pre-war period. The most notable changes have been a tremendous decrease in the wheat production of Russia and the practical cessation of exports from that country, a great increase in the production and exports of Canada, and considerable increases for the United States, Argentina, and Austrialia. During 1921–1925

Canada produced 88 per cent more wheat than in the years 1909–1913, and Canadian exports were almost three times as large. Wheat production in Argentina and Australia was about two-fifths larger in recent years than in the pre-war period, while the United States production showed an expansion of only about one-fifth. Exports from all of these countries show larger relative gains than their production as compared with pre-war years, while exports from Russia, India, and Rumania were less than half as great in 1921–1925 as in the pre-war period.

The crop of the seven principal exporting countries in 1926 was 16 per cent larger than in 1925, marked increases being shown in the production of the United States, Australia, Russia, and Argentina. The crops of Canada and India were slightly smaller than in 1925. Production in the seven principal importing countries was 15 per cent smaller in 1926 than in the preceding year, a particularly large decline being shown for France. Consumption has declined in most of these countries as compared with pre-war years as a result of the use of substitutes for flour and of their decreased purchasing power.

Wheat yields per acre in most of the exporting countries are decidedly variable from year to year as wheat is largely produced in areas subject to marked variations in weather conditions. For the group, however, these variations in conditions usually neutralize one another. The United States is still decidedly ahead of other important exporting countries in the proportion of wheat exported in the form of flour, but Canada and Australia are steadily becoming more important competitors in the flour trade.

COTTON

SUMMARY.—World production of cotton showed another substantial increase in 1926 and a further drastic decline in prices resulted. The 1926 crop in the United States was larger than in any earlier year on record, exceeding that of 1925 by about 10 per cent. This enormous crop resulted from the combination of an increase of 3.5 per cent in acreage and of 9 per cent in the yield per acre. The New Orleans price, which reached a peak of 35 cents in December, 1923, declined throughout most of the following three years and averaged only about 12 cents in December, 1926. Exports in the last six months of 1926 totaled 5,940,000 bales, which was 22 per cent more than in the corresponding period of 1925.

ACREAGE AND PRODUCTION

The United States generally produces from one-half to three-fifths of the world supply of cotton and occupies a more dominant position with respect to cotton than with respect to almost any other commodity. The only other important sources of supply are India, China, Egypt, Asiatic Russia, and Brazil. Over one-half of the American crop is usually exported, so that foreign conditions greatly affect demand, while, on the other hand, changes in American production have an important influence on world cotton prices.

During the season 1925–26 the production in the United States, Argentina, Asiatic Russia, and Egypt increased, while the production in Mexico, India, and China decreased. The total world production was 2,800,000 bales larger than in 1924–25. In the 1926–27 season United States production of cotton was 1,800,000 bales larger than in the preceding year. Production in Mexico and Asiatic Russia also increased, while output in India and China was considerably smaller. (Table 36.) Crop estimates for 1926–27 are not yet available for a number of countries.

Chart XIV.—COTTON: ACREAGE, PRODUCTION, EXPORTS, AND PRICES

NOTE.—Exports and prices are for the 12-month period beginning August 1 of the year specified.

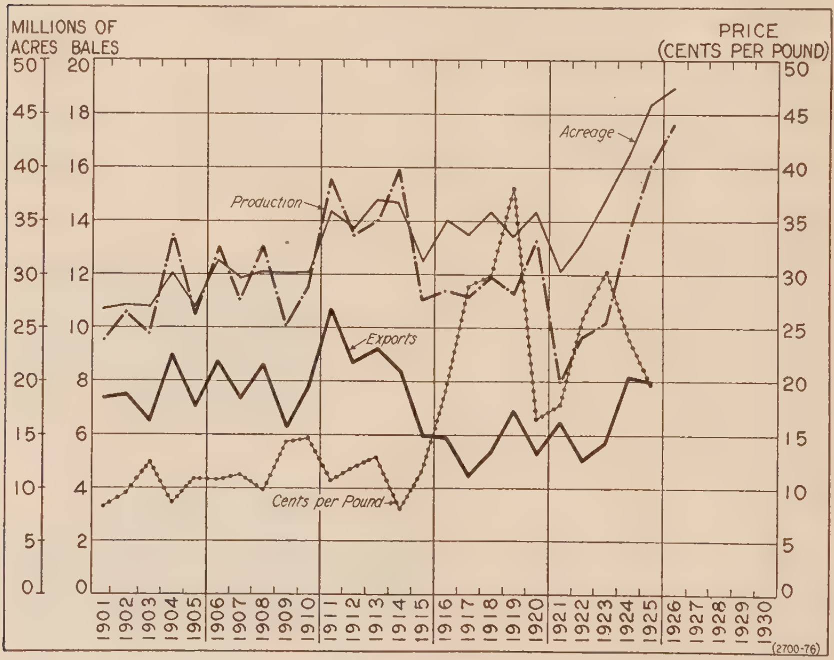


Table 36.—Estimated World Production of Cotton

[In thousands of bales of 478 pounds net; bales in other tables of this section are on other bases]

Year ending July 31—	World total	United States	Mexico	Brazil	Peru	Argentina	India	China	Russia, Asiatic	Egypt	Other countries
1910–1914	20,900	13,033	187	387	110	2	3,585	695	905	1,453	543
1922–1926	21,400	11,518	205	568	198	60	4,494	2,024	303	1,356	674
1921	20,990	13,440	[1] 188	476	177	26	3,013	1,883	58	1,251	478
1922	15,450	7,954	147	504	186	16	3,753	1,517	43	902	428
1923	19,300	9,762	202	553	197	26	4,247	2,318	55	1,391	549
1924	19,700	10,140	175	576	202	59	4,320	1,993	196	1,353	686
1925	24,900	13,628	298	605	206	67	5,095	2,179	484	1,507	831
1926	27,900	16,104	202	602	[1] 200	135	5,053	2,114	737	1,629	1,124
1927, preliminary	28,200	17,911	396	(2)	(2)	(2)	4,162	1,584	756	1,497	(2)

[1] From an unofficial source.

[2] Not yet available.

Source: Bureau of Agricultural Economics, Department of Agriculture.

The depredations of the boll weevil had a great effect upon the supply and price of American cotton during the past decade. The boll weevil first became a serious menace in the southern part of the Cotton Belt, but has since moved northward and eastward, causing great damage throughout practically the entire belt. Destruction wrought by this pest was an important contributing factor to the reduced yield per acre for a number of years. In 1921, owing largely to the damage by the boll weevil, the yield per acre was reduced to 124.5 pounds as against an average of 192 pounds in the pre-war years 1911–1915. In later years, however, the damage was not so great, owing to cold winters and dry summers, which are unfavorable to the boll weevil, and to various measures taken to combat it. The yield per acre was 157.4 pounds in 1924, 167.2 pounds in 1925, and 181.9 pounds in 1926. (Table 37.)

Farm prices of cotton fell sharply in 1920, but low yields per acre from 1921 to 1923 resulted in a marked advance in prices; under this stimulus the cotton acreage has increased rapidly (Chart XIV) and in 1926 the area harvested totaled 47,653,000 acres, exceeding the pre-war average more than one-third. Production in 1926, according to the Census Bureau, amounted to 17,688,000 bales, which is a record crop and 25 per cent greater than the average production for 1911–1915. It should be noted that the accompanying chart does not show all the data for the crop harvested in 1926, as exports from the crop of that year and the average crop year prices are not yet determined.

Table 37.—Acreage, Production, and Exports of Cotton and Production of Cottonseed

NOTE.—Exports are for 12 months beginning July 1 of year specified. Cotton production (excluding linters) and exports in running bales counting round as half bales.

Yearly average or year	Cotton						Cottonseed		
	Area	Production[1]	Farm value, Dec. 1	Yield per acre	Farm price, Dec. 1	Exports (domestic)	Production	Farm price	Farm value
	1,000 acres	*1,000 bales*	*1,000 dollars*	*Pounds*	*Cents per lb.*	*1,000 bales*	*1,000 tons*	*Dollars per ton*	*1,000 dollars*
1876–1885	15, 209	5, 652	243, 808	170. 7	9. 1	3, 869	2, 607	--------	--------
1886–1895	19, 421	7, 637	260, 415	176. 9	7. 7	5, 225	3, 645	--------	--------
1896–1900	24, 364	10, 021	337, 592	193. 3	7. 1	6, 778	4, 859	--------	--------
1901–1905	27, 865	10, 787	585, 560	184. 8	9. 0	7, 088	5, 185	15. 68	82, 556
1906–1910	31, 364	11, 754	660, 788	180. 3	11. 3	7, 763	5, 281	20. 10	103, 728
1911–1915	35, 132	14, 000	709, 629	192. 0	10. 2	8, 589	6, 317	21. 54	135, 066
1916–1920	34, 856	11, 823	1, 464, 088	163. 2	24. 9	5, 631	5, 312	54. 15	283, 914
1921–1925	37, 616	11, 528	1, 276, 522	144. 2	22. 4	6, 707	5, 114	34. 31	167, 926
1920	35, 878	13, 271	933, 658	178. 4	13. 9	5, 409	5, 971	22. 95	136, 990
1921	30, 509	7, 978	643, 933	124. 5	16. 2	6, 542	3, 531	29. 72	104, 560
1922	33, 036	9, 729	1, 160, 968	141. 3	23. 8	5, 066	4, 336	34. 70	150, 400
1923	37, 123	10, 171	1, 571, 823	130. 6	31. 0	5, 732	4, 502	42. 23	190, 050
1924	41, 360	13, 639	1, 540, 884	157. 4	22. 6	8, 205	6, 051	34. 08	206, 220
1925	46, 053	16, 123	1, 464, 032	167. 2	18. 2	7, 991	7, 150	30. 82	220, 360
1926	47, 653	17, 688	1, 016, 346	181. 9	10. 9	(2)	7, 960	(3)	(3)
Per cent change, 1926 from 1925	+3. 5	+9. 7	−30. 6	+8. 8	−40. 1	--------	+11. 3	--------	--------

[1] Bureau of the Census, 1899 to date; other figures, Department of Agriculture.

[2] Total for 9 months ending March, 1927, 9,195,778 bales; corresponding figures for 1926, 6,708,830 bales.

[3] Not available.

Sources: Bureau of Agricultural Economics, Department of Agriculture, Bureau of the Census and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Table 38.—Cotton: Acreage and Production, by States

[Production of lint (excluding linters) in 500-pound gross-weight bales]

State	Acreage (1,000 acres)						Production (1,000 bales)					
	1909–1913, average	1921–1925, average	1922	1924	1925	1926	1909–1913, average	1921–1925, average	1922	1924	1925	1926
United States	**34, 152**	**37, 616**	**33, 036**	**41, 360**	**46, 053**	**47, 653**	**13, 033**	**11, 518**	**9, 762**	**13, 628**	**16, 104**	**17, 910**
North Carolina	1, 516	1, 746	1, 625	2, 005	2, 017	2, 023	808	915	852	825	1, 102	1, 204
South Carolina	2, 662	2, 301	1, 912	2, 404	2, 654	2, 732	1, 295	743	492	807	889	997
Georgia	5, 141	3, 529	3, 418	3, 046	3, 589	4, 029	2, 087	852	715	1, 004	1, 164	1, 493
Alabama	3, 708	2, 929	2, 771	3, 055	3, 504	3, 713	1, 354	867	823	986	1, 357	1, 497
Mississippi	3, 181	3, 052	3, 014	2, 981	3, 466	3, 768	1, 181	1, 099	989	1, 099	1, 991	1, 884
Louisiana	1, 031	1, 441	1, 140	1, 616	1, 874	1, 960	341	479	343	493	910	828
Texas	10, 920	14, 310	11, 874	17, 175	17, 608	18, 363	3, 731	3, 776	3, 222	4, 951	4, 165	5, 609
Arkansas	2, 262	3, 008	2, 799	3, 094	3, 738	3, 782	868	1, 029	1, 018	1, 098	1, 605	1, 546
Tennessee	797	992	985	996	1, 173	1, 178	337	359	391	356	517	451
Oklahoma	2, 539	3, 479	2, 915	3, 861	5, 214	4, 912	870	993	627	1, 511	1, 691	1, 760
Other States	395	830	583	1, 127	1, 216	1, 193	161	407	288	500	713	641

Sources: Bureau of Agricultural Economics, Department of Agriculture; Bureau of the Census, Department of Commerce for production.

There has been a very considerable shift in the geographical distribution of cotton acreage in the United States since pre-war years, largely by reason of the varying influence of the boll weevil. A comparison of the 1926 acreage with that for the large 1914 crop shows that the acreage in Georgia, Alabama, and Florida has declined considerably and that in South Carolina slightly, while increases have occurred in all other cotton States. The greatest expansion of acreage has occured in the States west of the Mississippi—Oklahoma, Arkansas, Texas, and Louisiana. From 1925 to 1926 there were substantial increases in the acreage in Texas, Georgia, Mississippi, and Alabama. Acreage in Oklahoma was smaller than in 1925.

PRICES

The price of cotton is subject to very sharp variations owing to marked changes in supply as well as in demand. (Table 39; see also Table 15.) From about 1900 to the outbreak of the World War, cotton prices showed a general upward movement. The highest level known since the Civil War was attained in the crop year 1919–20, when the average price of Middling Upland cotton at New Orleans, 38 cents, was more than three times the average of the years 1911–1915. During the two following crop years prices averaged somewhat less than half as high. There was a very great advance during the next two years, owing to the small production, and prices reached a peak of 35 cents in December, 1923. Since that time cotton prices have showed a marked, though intermittent, decline, reaching 12 cents in December, 1926, or about one-third of the peak three years ago. The fall in prices has been principally owing to the large crops of 1925 and 1926.

Table 39.—Average Farm Prices of All Cotton and New Orleans Spot Prices of Middling Upland Cotton, by Crop Years

NOTE.—Farm prices represent weighted averages for the entire country. Annual averages are weighted according to quantities marketed each month. New Orleans yearly figures are simple averages of monthly averages.

[Prices in cents per pound]

Crop year ending July—	Farm price [1]	New Orleans spot price	Crop year ending July—	Farm price [1]	New Orleans spot price
1901–1905	(2)	[3] 9.6	1916	11.2	11.7
1906–1910	(2)	11.5	1917	17.3	18.8
1911–1915	11.0	[4] 11.8	1918	27.1	29.0
1916–1920	23.9	25.5	1919	28.8	29.9
1921–1925	21.4	23.0	1920	35.2	38.2
1910	13.6	14.3	1921	15.8	16.6
1911	14.0	14.7	1922	17.0	17.9
1912	9.6	10.9	1923	22.8	25.9
1913	11.5	12.2	1924	28.7	30.3
1914	12.5	13.1	1925	22.9	24.2
1915	7.4	[4] 8.2	1926	19.6	19.7

[1] Based on price quoted on the 15th of the month.
[2] Not available.
[3] The crop year ending 1901 based on 11 months, September to July.
[4] The crop year ending 1915 based on 10 months, October to July.
Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 40.—Average Farm Prices of All Cotton and New Orleans Spot Prices of Middling Upland Cotton, by Months

NOTE.—Farm prices represent weighted averages for the entire country. New Orleans yearly figures are simple averages of monthly averages.

[Prices in cents per pound]

Month	Farm price [1]							New Orleans price						
	1920	1921	1922	1923	1924	1925	1926	1920	1921	1922	1923	1924	1925	1926
January	36.0	11.6	15.9	25.2	32.5	22.7	17.4	40.28	14.53	16.53	27.51	33.93	23.66	20.26
February	36.2	11.0	15.7	26.8	31.4	23.0	17.6	39.39	12.85	16.36	28.78	31.90	24.61	19.83
March	36.8	9.8	16.0	28.0	27.7	24.5	16.5	40.69	11.08	16.74	30.43	28.74	25.52	18.35
April	37.5	9.4	16.0	27.6	28.7	23.7	16.6	41.41	11.17	16.80	28.42	30.41	24.52	18.11
May	37.4	9.6	17.3	26.2	28.1	23.0	16.0	40.31	11.80	19.31	26.63	30.70	23.54	18.06
June	37.3	9.7	19.6	25.9	27.8	23.0	16.1	40.49	11.03	21.68	28.61	29.43	24.07	17.54
July	37.1	9.7	20.6	24.8	27.3	23.4	15.4	39.41	11.49	22.01	25.73	29.23	24.05	18.25
August	34.0	11.2	20.9	23.8	27.8	23.4	16.1	34.03	12.78	21.55	24.22	26.65	23.07	18.01
September	28.3	16.2	20.6	25.6	22.2	22.5	16.8	27.48	19.35	20.74	27.71	22.79	23.09	16.18
October	22.4	18.8	21.2	28.0	23.1	21.5	11.7	20.95	18.99	22.05	29.18	23.48	20.86	12.68
November	16.6	17.0	23.1	29.9	22.5	18.1	11.0	17.65	17.27	25.34	33.68	23.95	19.82	12.52
December	12.7	16.2	24.2	32.1	22.2	17.4	10.0	14.59	17.16	25.48	34.88	23.66	19.27	12.22

[1] Based on price quoted on the 15th of the month.
Source: Bureau of Agricultural Economics, Department of Agriculture.

EXPORTS

Despite the development of cotton manufactures in the United States, the proportion of the American crop exported remained substantially unchanged down to the outbreak of the war, roughly two-thirds of the crop going abroad. For the crops of 1920 to 1923 the proportion averaged considerably lower—55 per cent. Exports for the year ending June 30, 1926, totaled 7,991,000 bales, which was almost one-half of the 1925 crop. However, the ratio of exports to production can not be taken as the true relation of the exports to the crop in the specified year, because in some years the exports include cotton from former crops, while in other years a considerable portion of the current production is added to stocks. The latter condition was the case in 1925–26, which accounts for the low percentage figures for that year. The large supply and low prices of cotton since the last harvest have substantially stimulated foreign demand. In the last six months of 1926 cotton exports aggregated 5,940,000 bales, or 22 per cent more than in the corresponding period of 1925, and during the first quarter of 1927 they were 78 per cent greater than in the corresponding quarter of 1926. Table 41 shows the changes in quantity and value of exports of cotton by both crop years and calendar years since 1919. There has been a very considerable change in the relative importance of different countries as markets for American cotton during recent years as compared with pre-war years. (Table 42.) Exports to the United Kingdom and Germany have declined considerably since 1913, while exports to Japan were more than three times as great in 1926 as in 1913, and exports to Italy and Canada were also substantially greater.

Further data regarding cotton are given in the section on textile manufactures.

Table 41.—Exports and Imports of Cotton

[Quantity in thousands of bales (equivalent 500-pound bales) and value in thousands of dollars]

Yearly average or year	Exports, year ending July 31			Exports, calendar year			Imports, calendar year		
	Quantity	Value	Average price per pound (cents)	Quantity	Value	Average price per pound (cents)	Quantity	Value	Average price per pound (cents)
1910–1914	8, 830	551, 378	12. 5	8, 579	518, 071	12. 1	232	21, 054	18. 2
1919	5, 843	928, 631	31. 8	6, 735	1, 137, 371	33. 8	351	71, 886	41. 0
1920	6, 761	1, 335, 885	39. 5	6, 359	1, 136, 409	35. 7	600	138, 744	46. 2
1921	6, 026	592, 305	19. 7	6, 678	534, 242	16. 0	278	32, 902	23. 7
1922	6, 479	602, 506	18. 6	6, 307	673, 250	21. 4	372	47, 682	25. 6
1923	5, 049	640, 795	25. 4	5, 486	807, 103	29. 4	375	49, 443	26. 4
1924	5, 936	911, 544	30. 7	6, 965	950, 581	27. 3	321	48, 596	30. 3
1925	8, 435	1, 056, 123	25. 0	8, 768	1, 059, 751	24. 2	313	52, 775	33. 7
1926	8, 377	926, 433	22. 1	9, 383	814, 429	17. 4	363	46, 240	25. 5

Source: Bureau of Foreign and Domestic Commerce.

Table 42.—Domestic Exports of Cotton, by Principal Countries of Destination

Country of destination	Quantity (thousands of running bales)							Per cent of total		Value (millions and tenths of million dollars)	
	1913 [1]	1921	1922	1923	1924	1925	1926	1913	1926	1925	1926
Total	**8, 725**	**6, 474**	**6, 114**	**5, 279**	**6, 795**	**8, 532**	**9, 048**	**100. 0**	**100. 0**	**1, 059. 8**	**814. 4**
Belgium	214	185	193	161	168	202	230	2. 5	2. 5	25. 4	22. 0
France	1, 015	638	828	653	795	918	1, 009	11. 6	11. 2	117. 6	95. 6
Germany	2, 351	1, 528	1, 265	1, 012	1, 641	2, 029	2, 083	26. 9	23. 0	246. 3	175. 1
Italy	479	537	570	534	588	727	816	5. 5	9. 0	91. 5	76. 6
Netherlands	14	93	92	88	120	149	124	. 2	1. 4	18. 7	11. 0
Russia in Europe	71	-------	1	6	238	298	262	. 8	2. 9	41. 1	32. 8
Spain	298	263	328	172	237	298	311	3. 4	3. 4	39. 5	29. 7
Sweden	41	44	57	65	65	55	55	. 5	. 6	6. 8	5. 1
United Kingdom	3, 563	1, 644	1, 846	1, 581	1, 986	2, 457	2, 308	40. 8	25. 5	304. 4	208. 4
Canada	148	174	206	193	167	228	263	1. 7	2. 9	26. 6	21. 4
China	7	153	36	27	31	55	172	. 1	1. 9	6. 3	13. 3
Japan	375	1, 097	589	674	675	1, 003	1, 251	4. 3	13. 8	120. 9	107. 9
Other	149	118	103	113	84	113	164	1. 7	1. 8	14. 7	15. 5

[1] Fiscal year, others calendar.

Source: Bureau of Foreign and Domestic Commerce.

SUGAR

SUMMARY.—The United States produces within its continental limits, roughly, one-fifth of its sugar requirements, chiefly in the form of beet sugar, the remainder being supplied by Cuba and our insular possessions. Domestic production of beet sugar, after a decrease in 1925–26 from the record crop of the preceding year, was substantially increased in 1926–27 according to preliminary official estimates. The world crop for 1926–27, on the other hand, is expected to fall short of the 1925–26 figures, chiefly because of the artificial crop-restriction program in Cuba and, to a lesser degree, because of decreased yields in Java and some of the European beet-producing countries. As a consequence, prices have recently risen after a two-year period of stagnation. The average New York price of raw sugar, duty paid, was 4.3 cents per pound for both 1925 and 1926, as compared with 6 cents in 1924, 7 cents in 1923, and a pre-war average price of 4.1 cents per pound. Quotations at the end of 1926 were about 1 cent higher than a year earlier.

PRODUCTION AND CONSUMPTION

The United States ranks first among sugar-using nations, consuming about one-fourth of the world's supply. It is, however, outranked by several countries as a producer, and hence imports the larger part of its consumption. We import raw cane sugar chiefly from Cuba and our insular possessions and refine it in this country. In the refining industry (Table 44) the cost of material constitutes much the greater part of the total value of products.

Considerable quantities of sugar beets are produced in this country, mainly in the West, and these are manufactured directly into refined sugar by factories located in or close to the areas of beet production. Practically all the cane sugar grown in continental United States is produced and refined in Louisiana. The sources of our sugar supply in recent years, while varying considerably from year to year, may be divided roughly as follows: Domestic production, one-fifth; imports from insular possessions, one-fifth (see Chart XV); and imports from foreign countries, three-fifths. Domestic production has shown comparatively little change during the past decade, but imports from our insular possessions and from foreign countries have substantially increased.

Chart XV.—PRODUCTION AND IMPORTS OF SUGAR

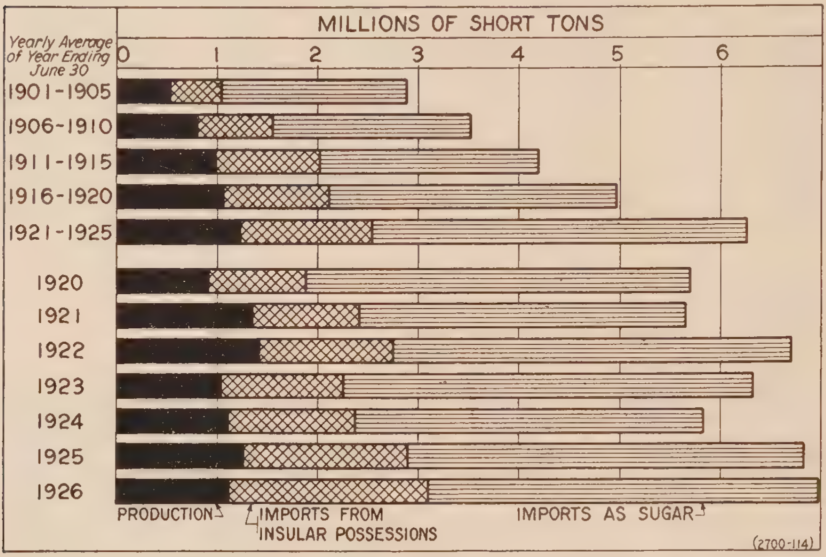


Table 43.—Sugar Production: United States, its Possessions, and World Total

[In thousands of short tons]

Yearly average or year ending June 30—	United States and possessions	United States			Porto Rico [1]	Hawaii[2]	Philippine Islands[3]	World total	Per cent of world total in—	
		Total	Beet (chiefly refined)	Cane (chiefly raw)					United States	United States and possessions
1871–1875	281	72	(4)	72	95	[5] 13	111	(6)	(6)	(6)
1876–1880	347	96	(4)	96	78	20	152	(6)	(6)	(6)
1881–1885	476	131	1	130	87	64	195	(6)	(6)	(6)
1886–1890	542	153	1	152	73	119	196	(6)	(6)	(6)
1891–1895	759	285	14	271	63	145	266	(6)	(6)	(6)
1896–1900	812	327	48	279	56	256	174	10,844	3.0	7.5
1901–1905	1,141	542	194	348	115	389	94	13,321	4.1	8.6
1906–1910	1,685	801	440	361	255	489	141	15,784	5.1	10.7
1911–1915	2,202	937	652	285	363	593	309	19,796	4.7	11.1
1916–1920	2,517	1,009	789	220	466	594	447	18,910	5.3	13.3
1921–1925	2,846	1,162	951	211	477	622	585	22,115	5.3	12.9
1920	2,356	848	726	122	485	556	467	17,999	4.7	13.1
1921	2,885	1,265	1,089	176	490	522	608	19,563	6.5	14.7
1922	2,882	1,348	1,020	328	408	592	533	20,577	6.6	14.0
1923	2,362	971	675	296	379	537	475	20,861	4.7	11.3
1924	2,713	1,046	881	165	448	691	529	22,833	4.6	11.9
1925	3,387	1,178	1,090	[7] 88	660	769	780	26,742	4.4	12.7
1926	3,056	1,052	913	[7] 139	610	787	607	27,707	3.8	11.0
1927 (preliminary)	3,037	1,039	971	[7] 68	616	[8] 800	[9] 582	26,301	4.0	11.5

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[1] Statistics for 1900 to 1906 represent shipments to the United States.

[2] Statistics for 1874 to 1880 represent exports.

[3] Exports 1866 to 1914, production 1912 and subsequently.

[4] Less than 500.

[5] One year only.

[6] Not available.

[7] Louisiana only.

[8] Trade reports of commercial crop.

[9] Unofficial.

Source: Bureau of Agricultural Economics, Department of Agriculture.

Hawaii, Porto Rico, and the Philippines are all large producers of cane sugar, which they ship chiefly to this country. The current crop (1926–27) in Hawaii is estimated to be the largest in history, while that of Porto Rico is expected to be only slightly larger than last year and that of the Philippine Islands somewhat smaller. The output of cane sugar in the United States, where this industry centers in the State of Louisiana, is highly variable for several reasons, among which may be noted variable climatic conditions and the tendency of sugar mills to make larger proportions of sirup and molasses from a given quantity of cane juice whenever the relative prices of these products compare favorably with sugar quotations. The 1926–27 Louisiana sugar crop is the smallest since 1874, being estimated at only 68,000 short tons, as compared with 139,000 in 1925–26, 88,000 in 1924–25, and an average of 208,000 for the five-year period 1921–25, inclusive.

Beet sugar production in the United States shows a substantial increase in 1926–27 over the preceding year, and while below the record yield of 1924–25 is better than the postwar average.

Census statistics for 1925 (Table 44) indicate an expansion in the beet-sugar industry, as compared with 1923, while the number of workers, value of products, and value added by manufacture in the cane-sugar industry declined. The number of wage earners was less in the cane-sugar refining industry, but this was probably a result of greater efficiency, as there was a substantial increase in the value added to products by manufacture.

Table 44.—Census Statistics of the Sugar Industries

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
BEET SUGAR							
1909	58	7, 204	57, 202	$4, 808, 446	$27, 265, 170	$48, 122, 383	$20, 857, 213
1914	60	7, 997	76, 705	6, 606, 204	41, 399, 361	62, 605, 210	21, 205, 849
1919	85	11, 781	127, 394	15, 908, 118	87, 029, 144	149, 155, 892	62, 126, 748
1921	92	13, 602	(1)	22, 658, 392	121, 868, 863	139, 109, 655	17, 240, 792
1923	84	7, 571	127, 771	10, 103, 182	70, 820, 150	118, 313, 978	47, 493, 828
1925	89	8, 872	146, 985	12, 088, 057	87, 038, 225	132, 339, 012	45, 300, 757
CANE SUGAR							
1909	214	4, 127	122, 189	1, 862, 751	21, 294, 844	30, 620, 738	9, 325, 894
1914	181	3, 632	113, 246	1, 561, 376	15, 958, 218	21, 635, 373	5, 677, 155
1919	202	6, 101	101, 859	4, 009, 369	44, 143, 416	57, 741, 320	13, 597, 904
1921	134	2, 724	(1)	2, 296, 207	16, 941, 432	22, 961, 221	6, 019, 789
1923	122	2, 820	88, 214	1, 727, 893	20, 963, 005	27, 180, 783	6, 217, 778
1925	94	2, 066	72, 796	1, 410, 964	11, 586, 359	13, 434, 999	1, 848, 640
CANE-SUGAR REFINING							
1909	19	9, 399	38, 414	5, 620, 971	226, 287, 960	248, 628, 659	22, 340, 699
1914	18	11, 253	49, 666	7, 823, 377	264, 085, 358	289, 398, 715	25, 313, 357
1919	20	18, 202	52, 541	22, 710, 464	662, 143, 981	730, 986, 706	68, 842, 725
1921	20	15, 457	(1)	19, 463, 410	426, 600, 908	466, 602, 352	40, 001, 444
1923	20	15, 254	72, 682	20, 044, 499	681, 880, 139	726, 241, 577	44, 361, 438
1925	21	14, 502	89, 098	18, 955, 114	549, 896, 102	606, 632, 783	56, 736, 681

[1] Not called for in schedules for 1921.

Source: Bureau of the Census.

In order to make sugar consumption figures as accurate as possible and readily comparable sugars in Table 45 are converted to the hard refined equivalent (100° polarization) for the years 1922 to 1926, inclusive. Thus the consumption figures for these past five years are for sugar in the form in which it is consumed. Even so, it must be borne in mind that they are not absolutely accurate, since no account is taken of stocks on hand at the beginning and end of the periods. Total consumption of sugar in the year ending June 30, 1925, was 6,119,000 short tons of refined sugar, or 108.5 pounds per capita, which set a new high record for this country. Incomplete data indicate that there was a further slight increase of consumption in the year ending June 30, 1926.

Table 45.—Sugar: Production, Trade, and Supply Available for Consumption

[In short tons, except per capita consumption which is in pounds]

Yearly average or year ending June 30—	Production	Brought in from insular possessions[1]	Imports as sugar	Domestic exports as sugar[2]	Exports in other forms	Available for consumption	
						Total	Per capita
	In terms of raw sugar						
1871-1875	72,508	------------	777,685	5,269	(3)	844,924	40.7
1876-1880	96,444	------------	830,375	23,820	(3)	902,999	38.1
1881-1885	131,073	------------	1,151,724	39,347	(3)	1,243,449	46.5
1886-1890	152,879	------------	1,414,647	43,136	(3)	1,524,389	50.9
1891-1895	284,346	------------	1,864,201	16,903	(3)	2,131,644	64.3
1896-1900	326,362	------------	1,943,678	5,660	(3)	2,264,380	62.2
1901-1905	542,788	500,764	1,839,377	7,301	(3)	2,875,638	71.7
1906-1910	808,015	751,650	1,956,304	32,423	(3)	3,483,547	78.9
1911-1915	985,511	1,038,605	2,187,469	91,554	15,164	4,104,886	85.7
1916-1920	1,060,086	1,066,272	2,834,957	642,023	44,538	4,283,754	83.3
1921-1925	1,233,056	1,314,489	3,721,100	448,697	36,102	5,783,945	104.4
1910	882,630	927,752	1,934,754	72,382	24,351	3,648,403	79.7
1911	903,475	943,701	1,845,279	36,597	15,966	3,639,891	78.3
1912	1,005,337	1,187,663	1,832,424	50,380	15,160	3,959,883	83.9
1913	907,070	1,026,972	2,266,426	30,963	19,217	4,150,288	86.6
1914	1,088,844	936,376	2,463,252	37,190	11,892	4,439,489	91.3
1915	1,022,828	1,098,314	2,529,963	302,641	13,585	4,334,878	87.9
1916	1,078,407	1,102,057	2,689,067	882,864	12,213	3,974,453	79.4
1917	1,193,107	1,203,938	2,527,984	676,752	29,211	4,219,065	83.2
1918	1,068,437	975,684	2,344,816	305,429	46,131	4,037,377	98.5
1919	1,102,421	1,073,944	2,799,962	568,566	36,747	4,371,013	83.8
1920	903,060	975,735	3,812,955	776,502	98,386	4,816,862	91.1
1921	1,346,811	1,076,342	3,228,279	319,589	89,491	5,242,852	97.9
1922	1,424,726	1,340,867	3,940,777	1,085,349	31,397	5,589,624	103.0
1923	1,021,360	1,235,049	4,068,205	412,196	12,568	5,899,849	107.3
1924	1,111,898	1,274,870	3,436,955	152,883	24,617	5,646,223	101.4
1925	1,260,483	1,645,319	3,931,282	273,470	22,436	6,541,178	116.0
1926	1,120,856	1,981,482	3,895,947	325,804	(4)	(4)	(4)
1927	1,066,000	------------	------------	------------	------------	------------	------------
	In terms of refined sugar[5]						
1922	1,325,906	1,260,894	3,686,397	1,009,377	29,182	5,234,638	96.5
1923	950,625	1,161,351	3,805,745	383,439	11,682	5,522,600	100.5
1924	1,034,615	1,198,777	3,214,883	142,217	22,943	5,283,115	94.9
1925	1,172,466	1,547,587	3,674,563	254,391	20,911	6,119,314	108.5
1926	1,042,903	1,859,332	3,634,323	303,073	(4)	(4)	(4)

[1] Includes Hawaii, Porto Rico, and the Philippine Islands; Virgin Islands included after 1916.

[2] Includes shipments to Hawaii and Porto Rico. Excludes direct exports to foreign countries from these islands.

[3] Not computed.

[4] Not yet available.

[5] Raw sugar converted to refined by multiplying by the following factors: Cuba and Hawaii, .9358; Porto Rico, .9393; Philippine Islands, .95; all others, .932.

Source: Bureau of Agricultural Economics, Department of Agriculture.

The percentage of total world sugar retained by the United States for consumption, which rose sharply during the war years, has shown a downward trend since 1922. This reflects the progressive increase of world production and the recovery of foreign countries whose sugar consumption was somewhat curtailed during the war and the postwar period of economic depression. This decrease for the United States is only relative, there having been an actual increase in both our total consumption and our consumption per capita.

The percentage of sugar contributed to United States supplies by our insular possessions has increased steadily since 1922–23 and in 1925–26 was higher relatively, than for any year except 1911–12. Coincidentally, relative percentages contributed by both domestic and foreign sources have declined.

Table 46.—Sugar: Per Cent of World Production Retained for Consumption and the Sources of Consumption

Yearly average or year ending June 30—	Per cent of world production retained for consumption	Per cent of consumption from [1]—			Year ending June 30—	Per cent of world production retained for consumption	Per cent of consumption from [1]—		
		Domestic	Noncontiguous territories	All foreign countries			Domestic	Noncontiguous territories	All foreign countries
1866–1870	(2)	5.6	14.1	80.3	1911	19.2	23.9	26.1	50.0
1871–1875	(2)	8.6	13.4	78.0	1912	22.0	24.4	30.2	45.4
1876–1880	(2)	10.7	13.5	75.8	1913	20.2	20.8	24.9	54.3
1881–1885	(2)	10.5	17.1	72.4	1914	20.9	23.5	21.3	55.2
1886–1890	(2)	10.0	18.8	71.2	1915	20.7	22.5	25.5	52.0
1891–1895	(2)	13.3	11.1	75.6	1916	21.1	25.5	27.7	46.8
1896–1900	20.9	14.4	13.4	72.1	1917	22.8	26.7	28.4	44.9
1901–1905	21.6	18.9	17.4	63.7	1918	19.9	25.0	23.8	51.2
1906–1910	22.0	23.0	21.6	55.3	1919	23.4	23.8	24.3	51.9
1911–1915	20.6	23.0	25.6	51.4	1920	27.0	17.4	19.9	62.7
1916–1920	22.8	23.7	24.8	51.5	1921	27.0	24.0	20.2	55.8
1921–1925	26.1	20.1	22.7	57.2	1922	27.3	24.0	23.8	52.2
					1923	28.2	16.5	20.9	62.6
1908	21.7	26.1	24.0	49.9	1924	24.6	18.6	22.7	58.7
1909	22.9	23.1	21.9	55.0	1925	24.3	18.1	25.3	56.6
1910	21.6	23.2	25.5	51.3	1926	23.8	15.9	29.7	54.3

[1] Exports assumed to be wholly from sugar imported from foreign countries.

[2] Not available.

Source: Bureau of Agricultural Economics, Department of Agriculture.

MARKET CONDITIONS AND PRICES

Owing largely to the effect of the war in cutting down sugar production in Europe, the price of raw sugar reached unprecedented levels in 1920. It then dropped enormously, but diminution of world stocks as a result of short crops in the period 1919–20 to 1921–22, inclusive, coupled with recovery of Europe's consuming ability caused it to advance again in 1923. These factors so stimulated production the world over, and especially in Cuba, that prices declined materially in 1924 and for the following two years remained at a relatively low level, New York quotations for duty-paid raws averaging 4.3 cents for both 1925 and 1926.

As will be noted in Table 50 sugar production for 1926–1927 is, as a result of natural causes, substantially less than a year ago in Java, Brazil, Australia, Czechoslovakia, and Sweden, while in Cuba the output has been artificially limited by legislative action. Responding to these stimuli, prices began rising in October, 1926, and duty-paid raws closed the year in New York at 5.1 cents per pound.

Table 47.—Wholesale Prices of Raw and Refined Sugar

[Cents per pound]

Yearly average, year, and month	Raw, 96° centrifugal	Refined, granulated	Month	Raw, 96° centrifugal	Refined, granulated
1891–1895	3.4	4.4	1925		
1896–1900	4.0	4.8	January	4.6	6.1
1901–1905	3.9	4.8	February	4.6	5.8
1906–1910	3.9	4.7	March	4.7	5.9
1911–1915	4.1	5.0	April	4.5	5.6
1916–1920	7.8	8.8	May	4.3	5.5
1921–1925	5.4	6.7	June	4.4	5.5
1918	6.4	7.8			
1919	7.5	8.9	July	4.3	5.3
1920	13.0	12.6	August	4.4	5.4
1921	4.8	6.2	September	4.3	5.4
1922	4.7	5.9	October	3.9	5.0
1923	7.0	8.4	November	4.0	5.1
1924	6.0	7.5	December	4.1	5.3
1925	4.3	5.5			
1926	4.3	5.5	1926		
			January	4.2	5.1
1924			February	4.2	5.2
January	6.7	8.4	March	4.0	4.9
February	7.2	8.7	April	4.1	5.2
March	6.9	8.5	May	4.2	5.5
April	6.4	7.9	June	4.1	5.4
May	5.6	7.3			
June	5.1	6.5	July	4.2	5.6
			August	4.2	5.5
July	5.1	6.6	September	4.4	5.6
August	5.4	6.6	October	4.6	5.7
September	6.0	7.1	November	4.7	5.8
October	6.0	7.3	December	5.1	6.1
November	5.8	7.3			
December	5.3	7.2			

Source: Survey of Current Business, Department of Commerce.

In considering the statistics presented in Table 48 it should be noted that the meltings relate only to cane sugar, the monthly production of beet sugar not being reported. The greater part of the beet sugar is put on the market during the last few months of the year and the first part of the following year, and this accounts largely for the seasonal decline in the meltings of raw cane sugar at that time. The Cuban crop comes on the market in the early part of the year, and receipts from Cuba and our insular possessions are heaviest at that time. Large stocks of raw sugar are at that season accumulated in the hands of American refiners, and toward the end of each year such stocks reach their minimum.

Table 48.—Sugar Statistics: Years, Quarters, and Monthly Data

NOTE.—Figures for meltings and stock include reports from Boston, New York, Philadelphia, Savannah, New Orleans, Galveston, San Francisco, and Baltimore. Meltings are calculated from weekly reports, the odd days being prorated; they represent raw cane sugar handled by refineries.

Year, quarter, and month	Raw cane sugar (long tons)					Exports, refined (long tons)
	Imports from—		Receipts, Louisiana crop	Meltings	Stocks at refineries, end of period	
	Hawaii and Porto Rico	Foreign countries				
1919	831, 864	3, 133, 788	97, 848	3, 918, 564	14, 497	658, 692
1920	849, 636	3, 584, 232	56, 448	4, 019, 772	100, 935	412, 452
1921	894, 864	2, 664, 060	105, 744	3, 553, 560	58, 730	416, 868
1922	821, 232	4, 344, 480	110, 832	5, 148, 024	33, 951	820, 092
1923	762, 900	3, 441, 672	169, 224	4, 148, 760	56, 788	198, 240
1924	949, 704	3, 692, 688	79, 212	4, 547, 244	49, 393	196, 572
1925	1, 203, 084	3, 992, 532	59, 424	5, 112, 900	120, 146	338, 736
1926	1, 157, 832	4, 129, 500	62, 172	5, 175, 132	246, 391	95, 484
1925						
January–March	310, 769	1, 093, 415	3, 831	1, 251, 840	184, 668	42, 619
April–June	460, 797	1, 279, 438	1, 243	1, 481, 919	376, 868	87, 241
July–September	321, 335	932, 577	681	1, 381, 466	187, 739	157, 408
October–December	110, 186	687, 106	53, 666	997, 680	120, 146	51, 473
1926						
January	58, 309	233, 821	28, 386	367, 439	89, 144	6, 553
February	144, 273	434, 095	1, 980	444, 259	178, 803	9, 545
March	150, 677	453, 128	258	497, 912	290, 061	16, 141
April	183, 482	460, 240	136	464, 740	461, 857	11, 195
May	172, 569	364, 473	362	452, 681	519, 595	6, 671
June	151, 174	385, 027	378	491, 389	541, 467	8, 793
July	83, 537	284, 411	854	465, 144	425, 902	11, 692
August	58, 206	313, 841	564	453, 226	341, 803	7, 095
September	56, 798	326, 105	228	448, 043	287, 655	5, 464
October	51, 505	299, 863	157	471, 192	222, 129	4, 213
November	26, 827	352, 569	17, 722	347, 156	277, 687	2, 417
December	20, 475	221, 927	11, 148	----------	246, 391	5, 604

Year, quarter, and month	Wholesale price, New York (cents)		Cuban movement (long tons)		
	Raw [1]	Granulated [1]	Receipts, Cuban ports	Exports	Stocks, end of period
1919	7. 5	8. 9	3, 940, 320	3, 881, 292	75, 771
1920	13. 0	12. 6	3, 459, 372	3, 297, 732	209, 237
1921	4. 8	6. 2	3, 496, 104	2, 797, 680	901, 758
1922	4. 7	5. 9	4, 294, 704	5, 139, 624	45, 349
1923	7. 0	8. 4	3, 487, 308	3, 480, 780	22, 162
1924	6. 0	7. 5	3, 990, 648	3, 984, 420	23, 850
1925	4. 3	5. 5	5, 042, 856	4, 941, 516	132, 148
1926	4. 3	5. 5	4, 611, 852	4, 666, 392	69, 741
1925					
January–March	4. 6	5. 9	2, 347, 743	1, 557, 156	802, 936
April–June	4. 4	5. 5	1, 761, 505	1, 471, 085	1, 121, 345
July–September	4. 3	5. 4	539, 025	1, 041, 913	594, 378
October–December	4. 0	5. 1	394, 579	871, 363	132, 148
1926					
January	4. 2	5. 1	611, 099	379, 723	364, 430
February	4. 2	5. 2	769, 537	445, 215	684, 263
March	4. 0	4. 9	920, 480	454, 631	1, 107, 066
April	4. 1	5. 2	757, 373	465, 263	1, 452, 146
May	4. 2	5. 5	354, 890	360, 464	1, 442, 231
June	4. 1	5. 4	254, 748	357, 859	1, 327, 592
July	4. 2	5. 6	163, 014	300, 955	1, 195, 658
August	4. 2	5. 5	164, 744	445, 900	935, 416
September	4. 4	5. 6	186, 580	473, 190	603, 469
October	4. 6	5. 7	197, 350	434, 253	390, 989
November	4. 7	5. 8	169, 202	342, 124	225, 592
December	5. 1	6. 1	62, 829	206, 816	69, 741

[1] Raw sugar is 96° centrifugal and granulated is in barrels.

Source: Survey of Current Business, Department of Commerce.

FOREIGN TRADE

Practically all sugar imported by the United States is in raw form, destined for refining before sale to the consumer, and practically all exports are refined. Statistics for recent years are shown in Table 49. These figures are for calendar years and therefore do not correspond with those shown in previous tables.

The total value of sugar imports from foreign countries and of receipts from Hawaii and Porto Rico in 1926 was $338,000,000, as compared with $363,000,000 in 1925, and $490,000,000 the year before, notwithstanding considerable increases in quantities in both of the last two years.

Exports of refined sugar were abnormally large during the war and immediate postwar years on account of the inability of the European beet sugar industry to supply current demand. A sharp decline in our exports occurred in 1926, marking the return of the European producing and refining industries to something nearer pre-war status.

Table 49.—Sugar: Imports and Domestic Exports, by Calendar Years

[Quantities in millions and tenths of millions of pounds; values in thousands of dollars]

Imports	1923	1924	1925	1926
Imports, quantity	7,709.3	8,275.7	8,919.5	9,420.2
Cuba	6,852.7	7,384.9	7,846.2	8,559.8
Philippine Islands [1]	475.8	678.0	985.5	760.9
Other countries	380.8	212.8	87.8	99.5
Total value	380,090	363,656	246,008	232,544
Receipts from Hawaii and Porto Rico, quantity	1,722.7	2,139.3	2,711.1	2,612.8
Hawaii	1,038.4	1,353.8	1,510.3	1,494.3
Porto Rico	684.3	785.6	1,200.8	1,118.5
Total value	117,861	126,106	117,013	105,574

Exports	1923	1924	1925	1926
Exports,[2] refined sugar, quantity	444.9	440.5	758.7	213.8
United Kingdom [3]	199.9	125.9	374.4	26.8
France	66.9	51.1	29.4	13.6
Greece	15.4	21.1	20.8	6.9
Norway	26.2	14.1	45.3	31.9
Panama	2.7	2.8	5.1	3.8
Mexico	2.9	2.4	3.2	7.5
Canada	6.1	20.4	10.4	5.1
Uruguay	21.3	54.1	67.7	43.0
British Africa	3.0	3.2	6.9	10.7
Other countries	100.5	145.4	195.5	64.5
Total value	28,933	24,028	28,160	7,570

[1] In the regular foreign trade reports the Philippines are treated as a foreign country.
[2] Not including reexports of imported sugar, nor shipments to outlying possessions (except Philippines).
[3] Includes Irish Free State in 1923 and 1924.

Source: Bureau of Foreign and Domestic Commerce.

WORLD PRODUCTION

World production of sugar for a long series of years is shown in Table 43. Production in principal individual countries is shown in Table 50. As compared with the preceding year the world crop of 1926–27 shows a substantial decrease but is still far above pre-war levels. The most notable decrease in the last two years occurred in Sweden; while in the larger producing countries there were considerable decreases in Cuba, United States (cane), Czechoslovakia, Russia in Europe, Java, Brazil, and Australia, only partially offset by scattering gains among other sugar-producing countries.

Table 50.—World Production of Sugar, by Countries

[Production in thousands of short tons. Cane and beet sugar expressed in terms of raw sugar. Production is for campaign ending in specified year. The 1927 figures are in some cases rather rough estimates]

Country	1910–1914, average	1925	1926	1927
World total [1]	19,297	26,742	27,707	26,301
Cane sugar, total [1]	10,473	17,784	18,680	17,790
United States	302	88	139	68
Cuba	2,287	5,812	5,463	5,040
Porto Rico	363	660	610	616
Dominican Republic	[2] 105	346	349	395
Argentina	194	274	434	524
Brazil	[2] 333	917	997	[3] 784
Peru	203	345	[3] 297	[3] 308
Japan	268	645	[4] 554	[3] 562
British India [5]	2,649	2,854	3,334	[3] 3,593
Java	1,513	2,202	2,535	2,190
Hawaii	567	769	787	[3] 800
Philippine Islands	294	780	607	[3] 582
Australia	216	479	582	465
Other countries	1,179	1,613	1,992	1,863
Beet sugar, total [1]	8,824	8,958	9,027	8,511
United States [6]	655	1,172	981	[3] 1,044
Germany [7]	[2] 2,340	1,724	1,770	1,794
Czechoslovakia	1,221	1,574	1,665	1,136
Russia in Europe	1,557	502	1,065	947
Poland	703	605	644	655
Netherlands [6]	246	352	330	305
Belgium	279	435	361	255
France [6]	808	868	781	758
Italy [6]	209	468	167	352
Spain	116	281	269	276
Denmark	127	150	191	165
Sweden	154	149	225	23
Other countries	409	678	578	801

[1] Estimate exclusive of production in minor producing countries.
[2] Average covers less than five years.
[3] Unofficial estimate.
[4] Formosa only.
[5] Gur production which is a low grade of sugar, consumed mostly by the natives.
[6] Refined sugar in terms of raw.
[7] Estimates for 1909–10 are for pre-war boundaries.

Source: Bureau of Agricultural Economics, Department of Agriculture.

TOBACCO

SUMMARY.—The leaf-tobacco crop was 4 per cent smaller in 1926 than 1925, totaling 1,323,000,000 pounds. This decline in total leaf production resulted primarily from a marked reduction in the output of cigar leaf and of dark tobacco. Exports of leaf tobacco aggregated 487,000,000 pounds in 1926, an increase of 2 per cent. Exports of bright flue-cured and dark-fired Kentucky tobaccos were larger than in 1925, while exports of Green River and Dark Virginia declined. Prices of high-grade cigarette types were well maintained, but prices of practically all other types, especially low-grade leaf, showed marked declines. More than 89,000,000,000 cigarettes were produced in the United States during the past year, which is the largest output of any year on record, and there was also an increase in the production of cigars, but the output of manufactured tobacco was slightly smaller. Exports of cigarettes to China, the principal market, increased 28 per cent, in spite of the political disturbances there.

PRODUCTION AND DISTRIBUTION

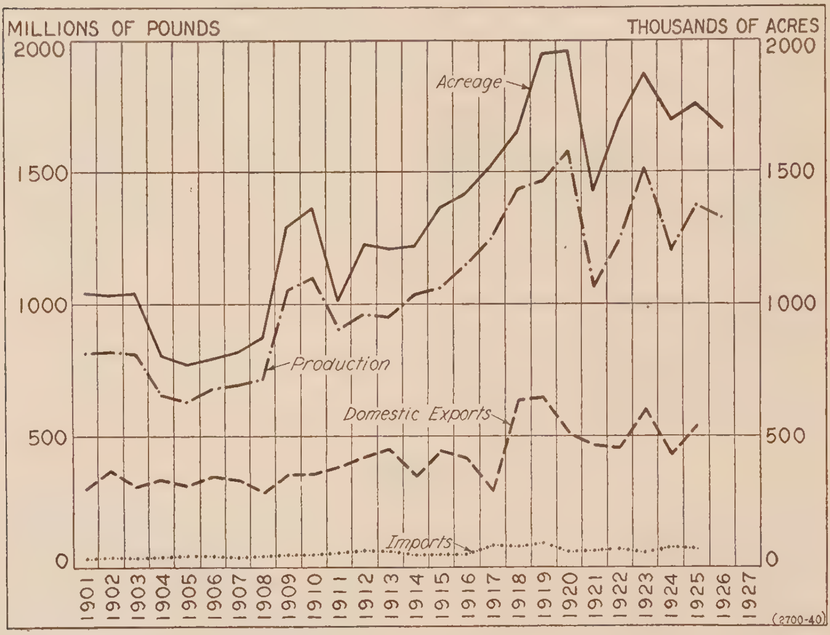
The Available Supply.

The United States tobacco crop in 1926 amounted to 1,323,388,000 pounds, harvested from 1,665,000 acres, making a drop of 4 per cent in production and 5 per cent in harvested area. The farm value of the crop was $245,175,000. (Table 51.) In addition to the domestic crop, the available supply of raw tobacco was increased by leaf imports amounting to 99,782,000 pounds, including shipments from

Porto Rico. Total exports of leaf for the year amounted to 487,077,000 pounds, and 712,872,000 pounds were consumed in domestic factories. Manufacturers and dealers had stocks on hand on October 1, 1926, amounting to 1,768,399,000 pounds.

Chart XVI.—PRODUCTION, EXPORTS, AND IMPORTS OF UNMANUFACTURED TOBACCO

NOTE.—Exports and imports are for 12 months beginning July 1 of year specified.



Production of Leaf Tobacco.

The crop of 1926, though less than 1925, was well above the average production for the five preceding years. (Table 51.) The trend of United States tobacco production was steadily upward from 1911 until 1920 (Chart XVI), when the peak of production was reached in a crop of 1,582,000,000 pounds. Since that time, with the exception of 1923, production has ranged from 1,070,000,000 pounds to 1,377,000,000 pounds annually.

The average yield per acre in 1926 was 795 pounds, compared with 783 pounds in 1925, and the average price paid to farmers was 18.5 cents per pound. The average yield per acre and farm price per pound were both greater in 1926 than in the preceding year, but, owing to the decrease in production, farmers received only $245,175,000 for their crop, compared with $250,774,000 in 1925.

Table 51.—Acreage, Production, and Exports of Tobacco

NOTE.—Exports are of unmanufactured tobacco for 12 months beginning July 1 of year specified.

Year or yearly average	Area	Production	Farm value [1]	Yield per acre	Farm price, Dec. 1	Exports
CENSUS FIGURES	*1,000 acres*	*1,000 pounds*	*1,000 dollars*	*Pounds*	*Cents per pound*	*1,000 pounds*
1879	639	472, 661	----------	740	----------	----------
1889	695	488, 257	----------	702	----------	----------
1899	1, 101	868, 113	56, 988	788	----------	----------
1909	1, 295	1, 055, 765	104, 303	815	----------	----------
1919	1, 864	1, 372, 993	444, 047	737	----------	----------
1924	1, 538	1, 106, 340	211, 733	719	----------	----------
DEPARTMENT OF AGRICULTURE ESTIMATES						
1901–1905	938	750, 049	55, 653	800	7. 5	325, 538
1906–1910	1, 031	851, 433	84, 458	826	10. 0	334, 396
1911–1915	1, 210	983, 723	101, 889	813	10. 4	408, 006
1916–1920	1, 698	1, 377, 866	355, 786	812	25. 4	496, 924
1921–1925	1, 692	1, 291, 922	262, 597	764	20. 3	496, 665
1920	1, 960	1, 582, 225	335, 675	807	21. 2	506, 526
1921	1, 427	1, 069, 693	212, 728	750	19. 9	463, 389
1922	1, 695	1, 246, 837	289, 248	736	23. 2	454, 364
1923	1, 877	1, 515, 110	301, 096	807	19. 9	597, 630
1924	1, 706	1, 251, 343	259, 139	734	20. 7	430, 702
1925	1, 757	1, 376, 628	250, 774	783	18. 2	537, 240
1926	1, 665	1, 323, 388	245, 175	795	18. 5	(2)
Per cent change, 1926 from 1925	−5. 2	−3. 9	−2. 2	+1. 5	+1. 6	----------

[1] Census figures for 1924 and 1919 relate to Jan. 1; for 1909, to Apr. 15; and for 1899, to June 1; while the Department of Agriculture estimates all relate to Dec. 1.

[2] Total for 9 months ending March, 432,636,174 pounds in 1925-26 and 406,505,972 pounds in 1926-27.

Sources: Bureau of Agricultural Economics, Department of Agriculture; Bureau of the Census and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Distribution of the Crop.

The tobacco manufacturing industry in 1925 maintained 2,623 establishments compared with 3,672 in 1923 (not including in either year establishments with an output worth less than $5,000). There were 132,000 wage earners in 1925 who received wages amounting to about $112,000,000. The products were valued at $1,091,000,000, and the value added to materials by manufacture amounted to $665,000,000. The value of products of the cigar and cigarette factories was $875,000,000, and of the factories making other tobacco products, $216,000,000.

Tobacco undergoes great loss in weight in the processes necessary to manufacture. Shrinkage, which is the greatest loss factor, is often spread over a period of from 1 to 3 years in aging, and the manufacturers must carry heavy stocks on hand. Consequently the crop is neither consumed in domestic factories nor exported during the year of harvest. The consumption of certain quantities in domestic factories, however, must be replaced by other quantities to age for future consumption. The trend of domestic consumption since 1921 has been steadily upward. On the other hand, exports have been subject to great fluctuation in recent years. In 1926, the ratio of domestic consumption (including that of imported tobacco) to production was 53.9 per cent, and that of exports to production was 36.8 per cent. (Table 52.)

Table 52.—Production, Consumption, and Exports of Tobacco

[Quantity in thousands of pounds. Consumption includes imported tobacco but not tobacco used in bonded factories manufacturing for export]

Calendar year	Production	Consumption of leaf in domestic manufacture	Exports of unmanufactured [1]	Ratio to current year's production (per cent)		Ratio to previous year's production (per cent)	
				Consumption	Exports	Consumption	Exports
1918	1, 439, 071	664, 974	406, 827	46. 2	28. 3	53. 2	32. 6
1919	1, 465, 481	625, 862	776, 678	42. 7	53. 0	43. 5	54. 0
1920	1, 582, 225	621, 864	479, 900	39. 3	30. 3	42. 4	32. 7
1921	1, 069, 693	587, 391	522, 756	54. 9	48. 9	37. 1	33. 0
1922	1, 246, 837	619, 517	441, 856	49. 7	35. 4	57. 9	41. 3
1923	1, 515, 110	662, 064	497, 347	43. 7	32. 8	53. 1	39. 9
1924	1, 251, 343	669, 103	575, 398	53. 5	46. 0	44. 2	38. 0
1925	1, 376, 628	692, 099	477, 488	50. 3	34. 7	55. 3	38. 2
1926	1, 323, 388	712, 872	487, 077	53. 9	36. 8	51. 8	35. 4

[1] Includes stem, trimmings, and scraps.

Sources: Bureau of Agricultural Economics, Department of Agriculture; Commissioner of Internal Revenue, Department of the Treasury; and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Production, Consumption, and Exports, by Types.

The production of the flue-cured, Burley, cigar leaf, and dark-fired Kentucky and Tennessee types, named in order of their importance, represent 88 per cent of the total production of the United States. (Table 53.) The decline in total leaf production in 1926 amounted to 4 per cent as compared with the crop of 1925, but the reduction of cigar leaf and dark tobaccos was much greater, amounting to 27 per cent for cigar leaf and 16 per cent for dark-fired Kentucky and Tennessee types. The cigar leaf crop in 1926 amounted to 144,685,000 pounds; the dark-fired Kentucky and Tennessee, 141,081,000 pounds. Maryland and eastern Ohio export and Burley were the only types showing gains over the previous year's production, the increases amounting to 17 per cent and 14 per cent, respectively. Owing to the increased demand for cigarette tobacco, North Carolina produced over 390,000,000 pounds in 1926 and ranked ahead of Kentucky as a tobacco producer for the first time. The decline in Kentucky production was caused by smaller production of dark-fired tobacco, an export type which has met serious competition in foreign markets. Price declines and stock accumulations of this type have been in evidence since 1924.

The total exports of leaf tobacco in 1926 (not including stems, trimmings, and scrap) amounted to 478,769,000 pounds, valued at $136,675,000. Compared with 1925, the export trade showed an increase of 2 per cent in quantity but a decrease of 11 per cent in value.

The flue-cured variety retained its superior position in the domestic industry throughout 1926, representing 60 per cent of the total exports, 43 per cent of the production, and 60 per cent of the farm value. While this type of tobacco has been paramount in the export trade for many years, its exports have increased from 180,000,000 pounds in 1923 to 287,000,000 pounds in 1926. The United Kingdom takes, on the average, between 40 and 50 per cent of the total flue-cured exports, but due to expansion of the tobacco industry in British colonies, exports to that country declined by 4 per cent in 1926. Decreases also occurred in the purchases of Poland and Danzig, Denmark, Belgium, and Hong Kong. On the other hand, trade with France more than doubled, and increases were also shown for the Netherlands, Germany, Canada, Java, China, and Australia. (Table 60).

Burley tobacco is used almost entirely for domestic consumption. This is one of the types which is being threatened by overproduction. Several foreign markets, however, took larger quantities during 1926, including Belgium, which bought over 3,000,000 pounds, or nearly half of the total amount, but there was a decline in export value of 9.6 cents per pound.

Table 53.—Production and Exports [1] of Leaf Tobacco, by Principal Types, Calendar Years

[Quantity in thousands of pounds, value in thousand of dollars, farm value is calculated from the average price for the season]

Type	Quantity				Value			
	1925		1926		1925		1926	
	Production	Exports	Production	Exports	Farm	Exports	Farm	Exports
Total	**1, 376, 628**	**468, 471**	**1, 323, 388**	**478, 769**	**234, 253**	**153, 351**	**245, 154**	**136, 675**
Bright flue-cured	576, 258	278, 279	571, 608	287, 334	115, 377	109, 979	147, 854	102, 607
Burley	275, 146	6, 017	312, 630	6, 729	52, 156	1, 816	44, 530	1, 385
Dark-fired Kentucky and Tennessee	168, 360	116, 974	141, 081	119, 847	14, 836	22, 955	10, 029	18, 561
Dark Virginia	47, 745	20, 343	46, 696	18, 390	7, 746	7, 718	3, 808	6, 149
Maryland and eastern Ohio exports	25, 140	13, 913	29, 400	13, 592	5, 925	2, 622	6, 311	2, 108
Green River (Pryor) and one-sucker	86, 534	17, 971	76, 888	14, 076	6, 481	3, 906	5, 145	2, 576
Cigar leaf	196, 941	883	144, 685	619	31, 455	620	27, 297	442
Other leaf [2]	504	14, 091	400	18, 182	277	3, 735	180	2, 847

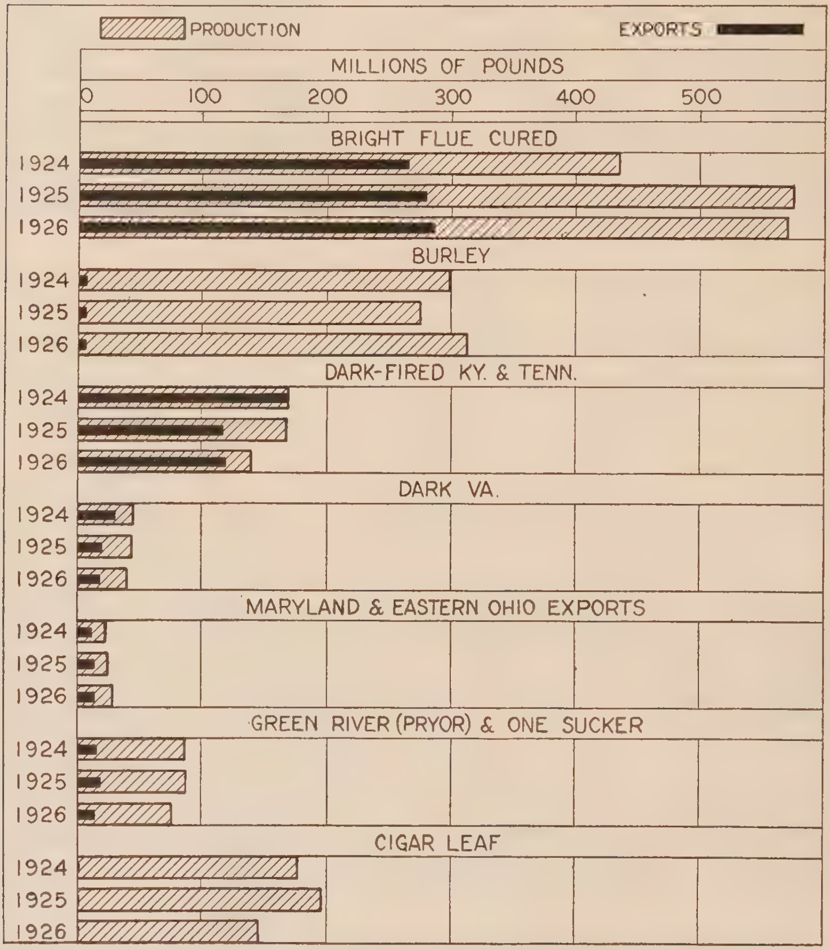
[1] Excludes stems, trimmings, and scrap.

[2] Exports contain Black Fats and Water Balers, which are oil-treated dark tobaccos not yet segregated in the export trade.

Sources: Production and farm value, Bureau of Agricultural Economics, Department of Agriculture; Exports, Bureau of Foreign and Domestic Commerce, Department of Commerce.

Despite a year full of vicissitudes, exports of dark-fired Kentucky and Tennessee tobaccos increased 2.5 per cent. This type, which is very largely exported (Chart XVII), also suffered a price reduction, the export price averaging 15.5 cents per pound in 1926, against 19.6 cents per pound in 1925. Many of the old markets for this dark-fired tobacco proved disappointing, the United Kingdom, Spain, and Italy especially so, but sufficient gains were registered on others to raise the export total for this type from 117,000,000 pounds in 1925 to 120,000,000 pounds in 1926. France bought 33,000,000 pounds, an increase of 168 per cent over the previous year's purchases, and ranked as the most important foreign buyer. Exports to Belgium and the Netherlands also showed large increases. Other expanding markets for this type are the Irish Free State, Portugal, Sweden, Switzerland, the Canary Islands, and French Africa.

Chart XVII.—**PRODUCTION AND EXPORTS OF TOBACCO, BY TYPES**



Dark Virginia tobacco has been consistently losing ground in foreign markets since 1923, when exports amounted to 48,000,000 pounds, valued at $23,000,000. In 1926 only 18,000,000 pounds were exported, valued at $6,000,000. Production also has declined during the last few years and the farm value in 1926 was cut in about half as compared with the previous year. The United Kingdom, Germany, Netherlands, Australia, and Norway are the principal markets, all of which showed declines in 1926, except Norway.

Nearly 75 per cent of the Maryland and Ohio export type sold abroad is bought by France and the Netherlands. Exports of this type during 1926 amounted to 13,600,000 pounds, a decrease of 2.3 per cent. The export price declined 3.3 cents per pound.

Green River and one sucker, which increased in exports in 1924 and 1925, dropped back to 14,000,000 pounds during 1926, thus registering a decline of 22 per cent and suffering more than any other type, except cigar leaf. The United Kingdom, British West Africa, and China are the most important buyers of Green River tobacco. All of these markets showed development in 1926, except the United Kingdom, whose purchases decreased by 60 per cent. The substitution of Canadian Green River on the British market has undoubtedly affected American exports of this type. The production of Green River and one sucker in 1926 amounted to 77,000,000 pounds, a decline of 11 per cent, and the farm value to $5,145,000, a decline of 21 per cent.

The United States export trade in cigar tobaccos is unimportant, annual exports exceeding 1,000,000 pounds only once since 1923. Owing to a highly localized domestic demand, reduced production in 1926, and lack of stocks on hand, the price has not declined. The export value per pound in 1926 amounted to 71.4 cents, compared with 70.2 cents in 1925; and production amounted to 144,685,000 pounds, valued at $27,297,000.

PRODUCTION AND CONSUMPTION OF MANUFACTURED TOBACCO

The quantity of leaf tobacco consumed in the manufacture of tobacco products in the United States has increased in every year since 1921. The trend has been upward, in fact, since the World War. In 1926 the estimated consumption of unstemmed leaf in registered factories amounted to 712,872,000 pounds, 37.3 per cent of which entered into the manufacture of cigarettes, 21.2 per cent in cigars, and 41.5 per cent in smoking and chewing tobacco and snuff. (Table 54.) Increased factory consumption of leaf is owing to the steady increase in the consumption of cigarettes. The average annual consumption of leaf in making cigarettes increased by nearly 42 per cent in the period 1922–1926 as compared with the average consumption of the four previous years; while leaf used in making cigars, tobacco, and snuff declined by about 7 per cent.

Table 54.—Leaf Tobacco: Amounts Consumed in Manufacture (on Basis of Estimated Weight Unstemmed)

NOTE.—Beginning with 1922 the Commissioner of Internal Revenue changed the method of computing the unstemmed weight of the tobacco consumed in stemmed form in making cigars and cigarettes. Prior to that time the computation had been made on the assumption that 3 pounds of stemmed tobacco represented 5 pounds of unstemmed. The new basis adopted was 3 pounds of stemmed to 4 pounds of unstemmed tobacco, which is considered more accurate. In order to present figures for earlier years comparable with those for later years a recalculation has been made, using the new basis. Production in bonded manufacturing warehouses is excluded throughout the table.

[Thousands of pounds]

Calendar year	Consumption of unstemmed leaf in—				Per cent of total consumption used for—		
	Total	Tobacco and snuff	Cigarettes	Cigars	Tobacco and snuff	Cigarettes	Cigars
1918	664,974	369,081	146,056	149,837	55.5	22.0	22.5
1919	625,862	307,576	166,783	151,503	49.1	26.6	24.2
1920	621,864	306,360	146,907	168,597	49.3	23.6	27.1
1921	587,391	285,827	158,336	143,228	48.7	27.0	24.4
1922	619,517	298,211	169,597	151,709	48.1	27.4	24.5
1923	662,064	301,916	200,395	159,753	45.6	30.3	24.1
1924	669,103	297,990	217,700	153,413	44.5	32.5	22.9
1925	692,099	298,783	244,315	149,001	43.2	35.3	21.5
1926 [1]	712,872	296,042	265,725	151,106	41.5	37.3	21.2

[1] Estimated.

Source: Commissioner of Internal Revenue, Department of the Treasury.

Table 55.—Production of Manufactured Tobacco and Snuff, Cigars, and Cigarettes in Registered Factories

Yearly average or year (calendar)	Manufactured tobacco and snuff	Cigars		Cigarettes
		Large	Small	
	1,000 pounds	*Millions*	*Millions*	*Millions*
1891–1895	267,967	[1] 4,340	(2)	3,588
1896–1900	285,798	[1] 5,021	(2)	4,198
1901–1905	346,841	6,513	717	3,235
1906–1910	413,054	6,883	1,060	6,209
1911–1915	437,346	7,088	1,054	14,818
1916–1920	456,584	7,365	810	41,592
1921–1925	409,457	6,692	557	65,921
1921	386,951	6,726	670	52,100
1922	419,506	6,722	633	55,780
1923	412,777	6,950	505	66,734
1924	414,178	6,598	531	72,725
1925	413,873	6,463	447	82,265
1926	410,076	6,589	419	89,473

[1] Includes small cigars.

(2) Included in total for "large cigars."

Source: Commissioner of Internal Revenue, Department of the Treasury.

More than 89 billion cigarettes were manufactured in 1926, compared with 82 billion in 1925. (This does not include about 7 billion which were made for export in bonded factories.) Production of cigars amounted to 7 billion; and the output of manufactured tobacco and snuff was 410,076,000 pounds. (Table 55.)

The quantity of tobacco consumed in all American factories (both registered and bonded), making allowance for imports and exports of finished products, represented a per capita consumption of 6.02 pounds in 1926, compared with 5.97 pounds in 1925. (Table 56.)

Table 56.—Consumption of Tobacco on Unstemmed Leaf Basis

[In thousands of pounds calculated throughout on the revised basis adopted in 1922; see Table 51]

Item	1920	1921	1922	1923	1924	1925	1926
Leaf tobacco consumed in manufacture:							
In registered factories	621, 864	587, 391	619, 517	662, 064	669, 103	692, 099	712, 872
In bond	31, 280	18, 209	29, 379	34, 305	28, 589	18, 519	19, 059
Add manufactured tobacco imported	11, 371	4, 678	6, 428	8, 915	7, 429	8, 152	7, 423
From Porto Rico	4, 913	2, 430	3, 312	3, 878	3, 535	4, 151	3, 564
Other countries	6, 458	2, 248	3, 116	5, 037	3, 894	4, 001	3, 859
Subtract exports of manufactured tobacco	58, 622	35, 957	41, 066	41, 907	37, 060	29, 726	33, 834
Remaining for consumption	605, 893	574, 325	614, 258	663, 377	668, 061	689, 044	705, 520
Per capita consumption pounds	5. 69	5. 30	5. 59	5. 94	5. 87	5. 97	6. 02

Sources: Commissioner of Internal Revenue and Division of Customs, Department of the Treasury; Bureau of Foreign and Domestic Commerce, Department of Commerce.

Tobacco Taxes.

The total Government receipts from tobacco in 1926 amounted to $409,754,000, or a per capita tax of $3.49. More than 90 per cent of the total receipts accrued from internal-revenue collections, which amounted to $371,678,000; import duties were collected to the amount of $38,076,000. The burden of the tax, as in 1925, was borne chiefly by users of cigarettes, who paid nearly two-thirds of the tobacco tax for the year. (Table 57.) Tobacco ranks next to the income tax as a source of Federal internal revenue.

Table 57.—Government Receipts from Tobacco

[In thousands of dollars, except per capita]

Yearly average or year (calendar)	Total		Import duties	Internal revenue	
	Amount	Per capita		Amount	Per capita
1909–1913[1]	89, 880	$0. 96	25, 175	64, 705	$0. 69
1920	302, 251	2. 84	33, 695	268, 556	2. 52
1921	307, 475	2. 84	35, 950	271, 525	2. 50
1922	316, 719	2. 88	31, 789	284, 930	2. 59
1923	353, 372	3. 16	35, 831	317, 541	2. 84
1924	368, 602	3. 24	33, 941	334, 661	2. 94
1925	395, 552	3. 43	35, 428	360, 124	3. 12
1926	409, 754	3. 49	38, 076	371, 678	3. 17

Class	Amount of internal revenue		
	1924	1925	1926
Cigars	44, 921	44, 005	28, 182
Cigarettes	213, 143	240, 007	268, 445
Manufactured tobacco and snuff	74, 339	73, 823	73, 833
Miscellaneous	2, 258	2, 289	1, 218

[1] Fiscal years.

Sources: Commissioner of Internal Revenue, Department of the Treasury; Bureau of Foreign and Domestic Commerce, Department of Commerce.

MARKET CONDITIONS

The unsatisfactory conditions in the tobacco market of 1925 were, for most types, accentuated throughout 1926. The continued spread of cigarette consumption kept the prices of cigarette tobaccos at a level satisfactory to the grower, but price declines on common and medium grades of other types were very discouraging. All high grades, however, occupied a strong position.

Notwithstanding the fact that practically all markets showed lowered averages as compared with 1925, the year opened with a slight stimulation owing largely to the increased activities of domestic manufacturers. This was particularly noticeable in the case of Burley, which enters more into domestic consumption than any other type. Later in the year the heavy stocks of low-grade leaf which competed with similar grades of the new crop caused low-grade prices to drop again. For common to medium leaf and lugs there were price declines between January and December, ranging from 2 to 4 cents per pound. Good to fine leaf and lugs suffered no perceptible decline.

In Europe, conditions point not so much to decreased buying as to a shift in customers. The substitution of foreign tobacco for American continues in several countries. Italy has ceased to be a market of great importance, owing to the substitution of Italian dark tobaccos. Trade with the United Kingdom in all types has been materially affected by imports from British colonies. Spain subsisted throughout 1926 on stocks, but is expected to resume buying soon. Because of trade agreements with Italy, Poland can not be counted as a customer for many years to come. On the other hand, France, the Netherlands, Germany, Belgium, and the Scandinavian countries manifested greater buying strength in 1926 than ever, and the total export trade with Europe increased in volume materially over 1925. Since the European farmer, because of cheaper labor, can always produce the low-grade tobaccos profitably, the competitive advantage of the American producer is superior quality.

The United States tobacco industry is threatened by overproduction, as domestic consumption and exports are not increasing sufficiently to take care of the increase in production. Lower prices resulted in a reduction of the total crop in 1926, but the increased production of certain types which have only a limited distribution creates a danger of localized market depression.

FOREIGN TRADE

Exports of Leaf Tobacco From the United States.

United States leaf tobacco (not including stems, trimmings, and scrap) was sold abroad in 1926, at an export value of $136,675,000. (Table 59.) The export price per pound averaged approximately 29 cents, compared with 33 cents in 1925, 30 cents in 1924, and 32 cents in 1923.

The foreign market for American leaf tobacco covers over 80 countries. Each country has trade potentialities, nevertheless the export trade is at present localized in a few countries of Europe and Asia. Almost three-fifths of the total leaf exports for the year went to five European countries—the United Kingdom, France, Netherlands, Germany, and Belgium; 24 per cent to three Far Eastern countries—

China, Japan, and Australia; 3 per cent to Canada. The rank of the United Kingdom as the most important foreign buyer was maintained throughout the year, although exports to that country amounted to 150,000,000 pounds, a decline of about one-eighth. China ranked second in importance, taking 86,000,000 pounds, valued at $21,000,000.

Table 58.—Domestic Exports of Unmanufactured [1] and Manufactured Tobacco

Yearly average or year (calendar)	Quantity				Value				
	Unmanufactured	Smoking and chewing	Cigars and cheroots	Cigarettes	Unmanufactured	Total manufactured [2]	Smoking and chewing	Cigars and cheroots	Cigarettes
	1,000 pounds	*1,000 pounds*	*Thousands*	*Millions*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
1910-1914	392, 183	7, 904	1, 752	1, 786	44, 788	[3] 5, 511	2, 410	43	2, 823
1918	406, 827	10, 904	22, 900	12, 146	122, 918	30, 047	5, 029	809	23, 724
1919	776, 678	11, 888	50, 056	16, 212	259, 986	46, 876	6, 006	1, 089	38, 070
1920	479, 900	10, 073	52, 361	15, 834	245, 532	43, 162	5, 075	1, 146	35, 977
1921	522, 756	10, 244	4, 127	8, 544	205, 133	20, 966	3, 493	123	16, 780
1922	441, 856	5, 096	689	11, 470	146, 489	26, 810	2, 707	21	23, 838
1923	497, 347	4, 628	1, 070	12, 253	153, 439	25, 769	2, 525	34	23, 085
1924	575, 398	4, 790	680	10, 496	164, 130	22, 057	2, 458	25	19, 408
1925	477, 488	4, 863	970	8, 146	153, 787	17, 516	2, 344	33	15, 043
1926	487, 077	4, 687	(4)	9, 539	136, 922	20, 499	2, 417	(4)	17, 898

[1] Includes stems, trimmings, and scrap.
[2] Includes small miscellaneous item.
[3] Fiscal years.
[4] Not shown separately.

Source: Bureau of Foreign and Domestic Commerce.

Table 59.—Exports of Leaf Tobacco,[1] by Country of Destination

[Quantity in thousands of pounds; value in thousands of dollars. Calendar years]

Country	Quantity				Value			
	1923	1924	1925	1926	1923	1924	1925	1926
Total	**474, 500**	**546, 555**	**468, 471**	**478, 769**	**152, 303**	**163, 035**	**153, 351**	**136, 675**
Belgium	33, 789	24, 442	14, 255	21, 592	3, 445	3, 217	2, 310	2, 243
Denmark	4, 917	4, 962	6, 222	4, 455	946	1, 043	1, 298	942
France	30, 171	41, 803	21, 723	49, 573	5, 151	5, 716	2, 894	4, 256
Germany	36, 719	44, 165	21, 587	27, 854	5, 348	7, 139	5, 125	5, 416
Irish Free State	(2)	(2)	1, 452	3, 080	(2)	(2)	232	362
Italy	34, 316	16, 846	11, 263	5, 814	8, 390	3, 723	2, 877	1, 383
Netherlands	27, 713	41, 625	20, 803	29, 566	4, 518	5, 671	4, 868	5, 602
Norway	4, 411	4, 964	3, 472	3, 664	1, 528	1, 427	976	1, 106
Portugal	3, 110	5, 323	2, 329	3, 741	456	718	364	458
Spain	16, 288	31, 931	15, 031	1, 483	2, 373	2, 907	1, 300	76
Sweden	5, 681	5, 964	1, 499	4, 355	971	1, 582	483	1, 056
Switzerland	2, 927	1, 919	2, 060	3, 523	645	429	576	888
United Kingdom	[3] 154,558	[3] 159,697	171, 115	149, 720	[3] 80, 005	[3] 84, 590	84, 405	67, 340
Canada	11, 357	15, 708	11, 956	15, 508	3, 437	4, 591	3, 417	4, 239
China	40, 959	72, 014	82, 598	85, 792	11, 335	17, 122	19, 100	20, 542
Japan	5, 821	11, 921	7, 793	7, 233	3, 135	5, 087	3, 299	2, 379
Australia	23, 344	20, 652	22, 577	23, 356	10, 744	7, 707	8, 333	8, 895
British West Africa	10, 200	9, 125	11, 324	8, 518	3, 076	2, 535	2, 969	2, 073
French Africa	7, 684	7, 806	5, 718	6, 224	1, 390	1, 465	1, 144	1, 093
Other countries	20, 535	25, 688	33, 694	23, 718	5, 410	6, 366	7, 381	6, 326

[1] Excludes stems, trimmings, and scrap.
[2] Included in United Kingdom.
Includes Irish Free State.

Source: Bureau of Foreign and Domestic Commerce.

Besides the exports of leaf, previously mentioned, more than 8,309,000 pounds of stems, trimmings, and scrap, valued at $247,000 were exported. (Table 61.) Stems enter into the manufacture of nicotine and snuff; and trimmings and scrap are used to a certain extent in cigarettes. Germany and China took over 3,000,000 pounds each or nearly 75 per cent of the total in 1926.

Table 60.—Exports[1] of Principal Types of Tobacco, by Principal Countries of Destination

[Quantity in thousands of pounds; value in thousands of dollars. Calendar years]

Type and country	Quantity				Value			
	1923	1924	1925	1926	1923	1924	1925	1926
Bright flue-cured	**179,982**	**265,515**	**278,279**	**287,334**	**76,988**	**108,089**	**109,979**	**102,607**
United Kingdom[2]	93,268	121,040	131,034	125,964	52,613	70,279	71,470	60,660
China	25,995	58,509	78,824	82,669	6,910	14,314	18,481	20,167
Australia	14,350	17,093	19,638	20,843	6,692	6,463	7,334	8,070
Canada	6,671	11,167	9,445	13,517	1,903	2,946	2,382	3,482
Japan	4,385	11,208	7,741	7,188	2,351	4,855	3,278	2,369
Dark-fired Kentucky and Tennessee	**150,880**	**170,228**	**116,974**	**119,847**	**28,368**	**26,401**	**22,955**	**18,561**
United Kingdom[2]	19,990	17,925	22,023	15,734	5,209	5,055	5,689	3,321
Spain	14,166	31,104	15,025	1,479	2,235	2,846	1,299	75
France	20,322	33,527	12,253	32,823	2,945	3,734	1,305	2,495
Germany	8,033	17,805	11,471	10,453	806	2,491	2,429	1,919
Italy	31,038	15,508	10,212	4,066	7,484	3,313	2,556	916
Netherlands	10,434	13,852	9,071	13,611	2,012	1,831	2,246	2,960
British West Africa	4,668	5,111	7,059	4,399	1,500	1,502	1,970	1,129
Dark Virginia	**48,361**	**31,071**	**20,343**	**18,390**	**23,277**	**10,497**	**7,718**	**6,149**
United Kingdom[2]	24,504	6,527	4,889	3,626	15,946	3,734	2,704	2,083
Germany	3,786	3,585	3,621	3,571	1,203	1,001	1,509	1,153
Netherlands	2,851	2,726	2,971	2,810	652	503	766	669
Australia	3,940	3,144	2,912	2,480	1,737	1,086	989	815
Green River (Pyror) and one-sucker	**14,058**	**16,085**	**17,971**	**14,076**	**3,857**	**2,888**	**3,906**	**2,576**
United Kingdom[2]	10,099	6,093	9,018	3,638	3,228	1,859	2,326	861
British West Africa	32	446	2,798	3,122	10	97	651	709
Maryland and Ohio export	**18,062**	**12,831**	**13,913**	**13,592**	**3,209**	**2,687**	**2,622**	**2,108**
France	6,677	6,196	6,404	5,514	1,604	1,489	1,249	736
Netherlands	5,828	3,663	2,947	4,595	633	533	523	572

[1] Excludes stems, trimmings, and scrap.

[2] Includes Irish Free State in 1923 and 1924.

Source: Bureau of Foreign and Domestic Commerce.

Table 61.—Exports of Stems, Trimmings, and Scraps, by Principal Countries of Destination

[Quantity in thousands of pounds; value in thousands of dollars. Calendar years]

Country	Quantity				Value			
	1923	1924	1925	1926	1923	1924	1925	1926
Stems, trimmings, and scrap	**22,846**	**28,843**	**9,017**	**8,309**	**1,136**	**1,095**	**436**	**247**
Belgium	1,064	1,337	908	559	74	64	88	35
Germany	11,677	9,411	1,775	3,049	489	348	51	82
Netherlands	5,141	12,730	276	260	136	470	12	10
Spain	1,121	2,441	1,492	--------	65	115	88	--------
Sweden	1,095	520	1,781	279	44	24	88	14
China	850	861	972	3,169	215	7	10	49
Other countries	1,898	1,543	1,813	993	113	67	99	57

Source: Bureau of Foreign and Domestic Commerce.

Exports of Tobacco Products.

Most countries require that the tobacco consumed by their people be manufactured within their borders, so that the United States is essentially a leaf exporter. More than $20,000,000 worth of tobacco products manufactured in the United States, however, were sold in foreign countries in 1926, compared with $17,500,000 worth in 1925. (Table 58.) Cigarettes represented 86 per cent of this trade and chewing tobacco 9 per cent. The total exports of cigarettes amounted to 9,539,000,000 in number, a gain of 17 per cent compared with 1925, and a little more than one-tenth of the domestic production in 1926. Small as American cigarette exports appear, in comparison with production, the United States is the greatest exporter of cigarettes in the world.

Asiatic countries absorb approximately 90 per cent of our total cigarette exports. Trade with China is particularly large and in spite of the internal disorders during 1926, exports of American cigarettes to that country amounted to 6,873,000,000, an increase of 28 per cent in quantity over the previous year. On the other hand, exports to Straits Settlements declined. Among the expanding markets may be mentioned Panama, Philippine Islands, and Mexico.

The encroachment of the cigarette on the consumption of other tobacco products shows up very clearly in the production and exports of chewing tobacco and cigars. Owing to the fact that much of the so-called smoking tobacco is ultimately consumed in cigarette form by those who roll their own cigarettes and by factories producing cigarettes from ready-cut tobacco, the advent of the cigarette has not been without advantage to manufacturers of smoking tobacco. Manufacturers of chewing tobacco and cigars have not fared so well. There has been a decrease in the manufacture of chewing tobacco since the World War of over 32 per cent and a decrease in exports of over 44 per cent. Exports of chewing tobacco in 1926 totaled only 3,651,000 pounds, and cigar exports were insignificant.

The foreign markets for smoking and chewing tobacco are widely scattered, but the most important ones are Australia, the Philippine Islands, United Kingdom, New Zealand, Cuba, and Canada.

Imports Into the United States.

The needs of the United States tobacco industry are not fully met by domestic production. In order that certain fine blends be obtained, tobacco is imported from the Dutch East Indies, the Balkan States, Cuba, and the Philippines. The total imports in 1926 (not including shipments from Porto Rico) amounted to 67,906,000 pounds, valued at $60,570,000, or 89 cents per pound. (Table 62.) Compared with imports of the previous year, this marks a decrease of about one-eighth in quantity. In addition to the above-mentioned imports from foreign countries, the domestic supply was augmented by shipments from Porto Rico, amounting to 31,876,000 pounds, valued at $20,989,000. Thus, the manufacturing industry purchased during the year 100,000,000 pounds of tobacco not grown in continental United States, and for this amount they paid $82,000,000.

Tobaccos from Porto Rico and the Philippine Islands enter the United States duty free. Leaf shipments from Porto Rico in 1926 increased by 26 per cent, compared with the year previous, and represented 32 per cent of all the leaf entering the United States ports. Imports from the Philippine Islands declined from 1,166,000 pounds in 1925 to 908,000 pounds in 1926 and were less than one-half as large as in 1923.

Table 62.—Imports of Tobacco from Foreign Countries (Including the Philippines) and Shipments from Porto Rico into the United States

Product and country	Quantity (1,000 pounds)				Value (1,000 dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
IMPORTS FROM FOREIGN COUNTRIES								
Total unmanufactured	**57, 670**	**68, 589**	**77, 690**	**67, 906**	**57, 158**	**75, 362**	**71, 464**	**60, 570**
Leaf, suitable for cigar wrappers [1]	7, 708	5, 894	6, 435	6, 551	18, 134	15, 100	15, 077	14, 747
Leaf, cigar unstemmed [1]	13, 915	11, 216	8, 571	8, 012	11, 544	11, 315	8, 067	7, 266
Leaf, cigar stemmed [1]	11, 538	11, 415	12, 725	14, 659	12, 609	14, 911	14, 244	15, 350
Leaf, cigarette	20, 222	36, 965	47, 025	36, 159	13, 773	33, 134	33, 281	22, 519
Greece	12, 396	20, 748	22, 958	13, 704	8, 722	21, 528	20, 396	11, 420
Turkey in Asia	1, 881	5, 098	10, 429	5, 518	1, 008	2, 782	4, 788	2, 829
Turkey in Europe	1, 105	1, 897	1, 657	4, 294	889	1, 593	794	2, 701
Italy	1, 592	5, 183	10, 312	10, 764	990	3, 487	6, 227	4, 369
Germany	1, 190	1, 751	892	729	741	2, 188	740	536
Leaf from Philippine Islands	1, 931	1, 231	1, 166	908	244	169	187	197
Scrap	2, 356	1, 868	1, 769	1, 616	853	733	608	491
Cigars and cheroots, total	4, 694	3, 568	3, 743	3, 446	9, 260	8, 075	9, 464	8, 356
Philippine Islands	4, 222	3, 159	3, 226	3, 021	5, 554	4, 693	5, 133	5, 047
Cuba	460	406	512	418	3, 693	3, 369	4, 313	3, 279
All other manufactured (including cigarettes)	343	326	258	413	431	444	420	562
SHIPMENTS FROM PORTO RICO TO UNITED STATES								
Unmanufactured	20, 680	20, 968	25, 337	31, 876	11, 813	9, 411	13, 138	20, 989
Cigars and cheroots (thousands)	193, 746	175, 075	207, 110	177, 501	6, 276	6, 124	7, 739	4, 898
Cigarettes (thousands)	1, 196	11, 295	2, 850	4, 625	11	116	29	40

[1] Practically all of the leaf tobacco suitable for cigar wrappers was imported from Dutch East Indies through Netherlands and that of stemmed and unstemmed cigar leaf from Cuba.

Source: Bureau of Foreign and Domestic Commerce.

More than 60 per cent of all the tobacco imported is consumed by the cigar industry, and about 36 per cent in the cigarette industry. Cuba and Porto Rico are the chief sources of supply for cigar tobacco. Cuba supplied over 24,000,000 pounds in 1926, valued at more than $23,000,000, most of which was used for cigar fillers. The most expensive tobacco imported into the United States is the cigar wrapper variety grown in the Dutch East Indies and imported through the Netherlands. The import value of this tobacco was $2.26 per pound in 1926 and the import duty, $2.10 per pound. American manufacturers buy only the best wrapper grades on the

Netherlands markets, and these are used in the manufacture of our most expensive cigars. The total imports of wrapper tobacco in 1926 amounted to 6,551,000 pounds of which 97 per cent came from the Netherlands.

Imports of cigarette tobacco in 1926 declined by 23 per cent from 1925 and amounted to 36,159,000 pounds. Greece and Turkey supplied only 65 per cent of the cigarette leaf imports, as compared with 75 per cent in the year previous, but appreciable quantities of Grecian tobacco, manipulated in Trieste, have been received annually for the past three years from Italy. In 1926, the quantity thus imported from Italy amounted to 10,764,000 pounds.

Aside from cigars and cheroots imported free of duty from the Philippine Islands and small quantities imported from Cuba, the United States has no appreciable import trade in tobacco products. Approximately 3,000,000 pounds of cigars and cheroots, valued at $5,000,000, were imported from the Philippine Islands in 1926. Shipments of cigars and cigarettes from Porto Rico totaled 177,501,000 in number, valued at $4,898,000.

WORLD TRADE IN LEAF TOBACCO

There are very few countries of the world which do not import leaf tobacco in either large or small quantities, but between 90 and 95 per cent of the export trade is confined to less than a dozen major producing countries. Thus there is an international commercial exchange of more than a billion pounds of leaf tobacco annually. (Table 63.)

The position occupied by the United States in the world's tobacco industry is the strongest of any country. Some idea may be obtained of the importance of this country when it is realized that the United States production for a single year amounts to more than the total exports from all countries in the world. Furthermore the United States in 1925 furnished about 40 per cent of the tobacco entering international trade. The Dutch East Indies, which holds the primary position as an exporter of cigar tobacco, ranks second among the world's leaf exporters. Greece, Brazil, and Bulgaria follow in the order named.

The international leaf-tobacco trade is dominated by cigarette tobacco, approximately half of all tobacco entering trade channels being of this type. Cigar tobacco represents a large part of the remainder. Fully half the cigarette tobaccos entering the world trade is supplied by the United States, although the cigarette industry in general looks to Greece, Turkey, and Bulgaria for the aromatic tobaccos so essential to blending.

The United States contributes practically no cigar tobaccos to the world market. The domestic industry consumes nearly all the domestic production of this type and imports about 23,000,000 pounds annually. Exports from the Dutch East Indies are entirely cigar tobaccos and amounted to 203,000,000 pounds in 1925. A good proportion of Brazilian exports are cigar tobaccos, and exports from that country amounted to 75,000,000 pounds in 1925 and 61,000,000 pounds in 1926. Other countries which supply cigar tobaccos in appreciable quantities are the Philippine Islands, Cuba, and Dominican Republic.

Table 63.—Exports and Imports of Leaf Tobacco[1] of Important Exporting and Importing Countries

[In thousands of pounds]

Exporting countries	1924	1925	1926	Importing countries	1924	1925	1926
Total	**1,285,337**	**1,234,897**	**1,093,879**	**Total**	**1,130,675**	**1,240,958**	**854,607**
United States	575,398	477,488	487,077	Canada	18,035	14,848	16,100
Cuba	31,660	33,628	[2] 40,584	Argentina	13,346	20,131	(5)
Dominican Republic	34,745	49,075	[2] 21,504	United Kingdom	162,947	176,598	186,498
Brazil	62,720	75,348	[2] 61,504	France	58,537	99,732	98,522
Greece	92,225	93,081	[2] 121,968	Italy	35,712	25,609	12,970
				Netherlands	65,898	67,603	70,951
Bulgaria	69,963	74,179	60,546	Belgium	45,974	43,389	41,371
British India	47,300	33,600	[2] 33,306	Germany	215,774	264,572	134,773
Dutch East Indies	151,744	202,646	[3] 128,613	Czechoslovakia	44,166	45,622	41,497
Philippine Islands	49,636	38,420	33,164	Austria	30,540	26,525	[4,2] 23,433
Algeria	30,288	24,625	[4] 23,175	Poland	29,607	49,042	27,434
Other countries	139,658	132,807	82,438	Denmark	11,603	10,322	12,665
				Norway	5,457	4,360	4,974
				Sweden	12,598	9,022	12,829
				Spain	72,355	56,449	(5)
				China	90,341	73,556	(5)
				Australia	26,234	19,111	(5)
				Egypt	16,356	16,709	15,236
				Other countries	175,195	217,758	155,354

[1] Includes stems, trimmings, and scrap.
[2] Unofficial.
[3] Java and Madura only.
[4] Incomplete.
[5] Not available.

Source: Official Trade Reports of individual countries.

Europe is the great tobacco consumer of the world. Imports of leaf tobacco into Europe in 1925 amounted to nearly 897,000,000 pounds, or more than three-fourths of the quantity entering the world's commerce in that year. Germany normally ranks as the greatest tobacco importer and the United Kingdom next, although the positions in 1926 were exchanged. Imports into Germany in 1925 amounted to 265,000,000 pounds; into the United Kingdom, 177,000,000 pounds. Italy and the United Kingdom have been developing programs whereby home-grown and colonial tobaccos will be substituted for imported leaf. Italy has succeeded in reducing imports, but the United Kingdom has merely increased consumption, leaf imports showing material gains since 1924.

Outside of Europe, China, Argentina, Australia, Egypt, and Canada are the main tobacco consumers of the world. The leaf export trade of China at one time exceeded the import trade, but owing to increased cigarette production within the country there has in recent years been an excess of imports.

LIVESTOCK AND MEAT PRODUCTS

SUMMARY.—Meat production in 1926 was 1.6 per cent greater than in 1925 and was larger than in any other postwar year, except in 1923 and 1924. The increase was owing to the increase in beef production, which was 5.8 per cent greater than in 1925 and was also larger than in any previous year on record. Prices of cattle averaged lower than in any of the preceding years and are only about 20 per cent higher than before the war. Production of pork products showed a slight decrease and was 20 per cent less than the output of 1923 This decrease in production has been accompanied by higher prices of hogs. the average Chicago prices for 1926, as a whole, being 63 per cent higher than the 1923 average. Hog prices were highest during the spring but in December were about 5½ per cent higher than a year earlier. Production of mutton and lamb also increased, being larger in each quarter of the year, except from April to June, than in the corresponding quarter a year earlier. Stocks in December were somewhat higher than at the end of 1925 but were much smaller than at the end of either of the three preceding years. Exports of all the principal meats decreased during 1926 in quantity but there was a moderate increase in the value of beef exports. The exports of pork meats were 22 per cent smaller in quantity and 17 per cent less in value than in 1925, while exports of lard showed a very slight increase in quantity but averaged 8 per cent smaller in value during 1926.

PRODUCTION AND CONSUMPTION

Census Statistics of Packing Industry.

The wholesale slaughtering and meat-packing industry (which does not include small plants slaughtering for direct retail trade) ranks second among our manufacturing industries when measured by the gross value of its products. As in other food industries, however, the cost of materials constitutes a very large proportion of the total value. Census statistics, shown in Table 64, indicate that the total value was 18 per cent higher in 1925 than in 1923, and there were also increases in the value added by manufacture and the horsepower of prime movers. The average number of wage earners and the total wage payments, however, were smaller.

Table 64.—Wholesale Slaughtering and Meat Packing (Census Statistics)

Year	Number of establishments	Wage earners (average number)	Horsepower	Wages	Cost of materials	Value of products	Value added by manufacture	Dressed weight of animals slaughtered
				1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000,000 pounds*
1899	882	68, 386	85, 008	33, 392	682, 097	783, 779	101, 682	8, 895
1904	929	74, 134	115, 831	40, 327	805, 857	913, 915	108, 058	9, 741
1909	1, 221	87, 813	201, 697	50, 404	1, 191, 438	1, 355, 544	164, 106	10, 371
1914	1, 279	98, 832	252, 079	62, 136	1, 441, 663	1, 651, 965	210, 303	10, 099
1919	1, 304	160, 996	358, 522	209, 489	3, 782, 930	4, 246, 291	463, 361	13, 435
1921	1, 184	117, 042	(1)	152, 903	1, 868, 198	2, 200, 942	332, 744	12, 237
1923	1, 397	132, 792	382, 127	167, 569	2, 176, 010	2, 585, 804	409, 794	15, 641
1925	1, 289	120, 422	441, 516	159, 355	2, 625, 192	3, 050, 286	425, 094	14, 456

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Long Time Changes.

It is impossible to determine closely the movement of meat production over a long period of time. It can not be determined from the number of animals on farms, because changes in the time of the year at which the censuses were taken make the earlier figures incomparable, and also because animals are brought to market at a younger age than formerly, and the weight of meat produced annually has increased relatively to the number of animals on farms. Table 65 indicates that at the present time the number of cattle (except dairy cows), sheep, and swine on farms is considerably less than a quarter of a century ago.

Table 65.—Livestock on Farms

NOTE.—In 1920 the Census reported 3,459,000 goats and 72,000 asses and burros, the 1925 figures are not yet available.

Date	Value, all livestock (1,000 dollars)[1]	Number (thousands)						
		Horses	Mules	Dairy cows [2]	Other cattle	Sheep	Swine	Poultry [1]
CENSUS RETURNS								
June 1, 1870 [3]	1, 229, 890	7, 145	1, 125	8, 935	14, 885	28, 478	25, 135	----------
June 1, 1880	1, 576, 885	10, 357	1, 813	12, 443	27, 232	42, 192	49, 773	125, 507
June 1, 1890	2, 308, 768	15, 266	2, 252	16, 512	41, 137	40, 876	57, 427	285, 609
June 1, 1900	3, 075, 478	18, 267	3, 265	17, 136	50, 584	61, 504	62, 868	250, 624
Apr. 15, 1910	4, 925, 174	19, 833	4, 210	20, 625	41, 178	52, 448	58, 186	295, 880
Jan. 1, 1910 (est.)	------------	19, 500 to 19, 600	4, 160 to 4, 180	17, 125	41, 875 to 42, 875	46, 000 to 47, 000	52, 000 to 53, 000	---------
Jan. 1, 1920	8, 013, 325	19, 767	5, 432	19, 675	46, 977	35, 034	59, 346	359, 537
Jan. 1, 1925 [4]	4, 858, 389	16, 401	5, 681	17, 645	43, 115	35, 590	50, 854	409, 291
DEPARTMENT OF AGRICULTURE ESTIMATES JAN. 1—								
1920	8, 124, 963	19, 848	5, 475	21, 427	47, 444	40, 243	59, 813	[5] 359, 537
1921	6, 053, 128	19, 134	5, 586	21, 408	45, 776	38, 690	58, 711	370, 600
1922	4, 758, 238	18, 564	5, 638	21, 788	45, 476	36, 186	59, 355	423, 400
1923	5, 057, 049	17, 943	5, 702	22, 063	44, 093	36, 212	68, 447	439, 900
1924	4, 748, 686	17, 222	5, 730	22, 255	42, 252	36, 876	65, 937	487, 700
1925	4, 675, 893	16, 489	5, 725	22, 481	39, 515	38, 112	55, 568	[5] 409, 291
1926	5, 004, 756	15, 840	5, 733	22, 148	37, 000	39, 864	52, 055	[4] 464, 000
1927	5, 076, 605	15, 279	5, 734	21, 824	35, 697	41, 909	52, 536	(6)

[1] Census figures include animals not specified and value of poultry in all years, Department of Agriculture estimates include only value of horses, mules, dairy cows, other cattle, sheep and swine.

[2] The definition of dairy cows at the census of 1910 was different from that at other censuses. The distinction between dairy and other cows can not be sharply made, a fact which explains the disparity between census figures and those of the Department of Agriculture.

[3] Census of 1870 was probably incomplete in the South.

[4] Preliminary.

[5] Census figures.

[6] Not yet available.

Sources: Bureau of the Census, Department of Commerce, Bureau of Agricultural Economics, Department of Agriculture.

The long-term movement of meat production can not be determined accurately from the statistics of output in wholesale (federally inspected) plants, for the reason that large numbers of animals are slaughtered on farms and in small establishments, and no recent data exist regarding such slaughter. There is a tendency toward increase in the proportion of total slaughter conducted in wholesale packing plants.

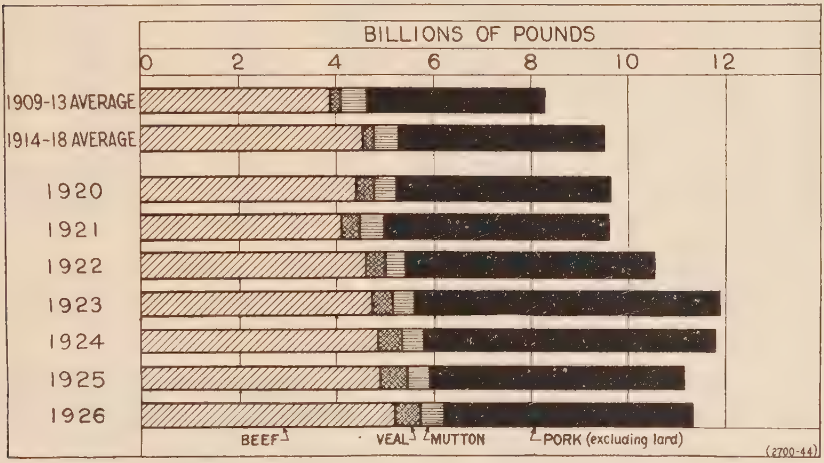
Table 66.—Estimated Livestock Slaughter and Meat Production

Yearly average or year	Animals slaughtered (thousands)				Meat produced (millions of pounds)					
	Cattle	Calves	Sheep and lambs	Swine	Total [1] (excluding lard)	Beef	Veal	Mutton and lamb	Pork (excluding lard)	Lard
Federally inspected:										
1909–1913	7, 474	2, 158	13, 231	31, 759	8, 316	3, 880	221	534	3, 679	932
1914–1918	8, 880	2, 496	11, 209	37, 824	9, 477	4, 510	238	450	4, 273	1, 079
1919	10, 091	3, 969	12, 691	41, 812	10, 577	4, 736	377	469	4, 991	1, 323
1920	8, 609	4, 058	10, 982	38, 019	9, 689	4, 365	370	413	4, 539	1, 321
1921	7, 608	3, 808	13, 005	38, 982	9, 671	4, 082	366	493	4, 730	1, 379
1922	8, 678	4, 182	10, 929	43, 114	10, 539	4, 569	395	417	5, 157	1, 575
1923	9, 163	4, 500	11, 529	53, 334	11, 923	4, 682	443	446	6, 351	1, 971
1924	9, 593	4, 935	11, 991	52, 873	11, 837	4, 825	499	455	6, 057	1, 923
1925	9, 853	5, 353	12, 001	43, 043	11, 179	4, 935	541	467	5, 235	1, 452
1926	10, 180	5, 153	12, 961	40, 636	11, 354	5, 223	530	501	5, 099	1, 513
Not Federally inspected (estimated):										
1925	4, 853	4, 746	3, 453	25, 251	5, 826	2, 211	460	132	3, 020	771
1926	4, 791	4, 389	3, 728	25, 143	5, 891	2, 235	430	142	3, 082	811
Total:										
1925	14, 706	10, 099	15, 454	68, 294	17, 005	7, 146	1, 001	599	8, 255	2, 223
1926	14, 971	9, 542	16, 689	65, 779	17, 245	7, 458	960	643	8, 181	2, 324

[1] Includes a small quantity of goat meat.

Source: Bureau of Animal Industry, Department of Agriculture.

Chart XVIII.—PRODUCTION OF MEAT IN FEDERALLY INSPECTED PLANTS



It is certain, however, that the total production of meat during the last few years has been materially greater than before the war, and the increase has probably exceeded that in population. The average production in federally inspected plants (Table 66) for the five pre-war years was 8,316,000,000 pounds annually, while for the five years 1922 to 1926 the average was 11,366,000,000 pounds, or 36.7 per cent greater. The increase over pre-war appears in beef, veal, and pork, but not in mutton. (Chart XVIII.) However, mutton showed a steady increase from 1922 to 1926. This comparison probably exaggerates somewhat the gain in total meat production, including that not subject to Federal inspection.

Although exportation of meat is an important factor, the great bulk of the product is consumed in this country. The per capita consumption of the United States is higher than that in most other countries. Estimating approximately the production on farms and in small plants, the Department of Agriculture calculates the total output of meat, excluding lard, in 1926, at 17,245,000,000 pounds, representing a per capita consumption of 143 pounds. (Table 67.)

Table 67.—Estimated Production, Exports, Imports, and Consumption of All Meats (Excluding Lard)

[In millions of pounds except per capita, pounds]

Calendar year	Slaughter (dressed weight)[1]			Exports	Imports (less re-exports)	Consumption [2]	
	Total	Federally inspected	Other			Total	Per capita
1907	15, 025	8, 917	6, 108	971	----------	13, 905	159. 1
1908	14, 801	8, 909	5, 892	862	----------	13, 791	154. 9
1909	14, 362	8, 402	5, 960	651	----------	13, 585	149. 8
1910	13, 648	7, 836	5, 812	437	----------	13, 121	142. 2
1911	14, 454	8, 727	5, 727	584	----------	13, 777	147. 1
1912	13, 749	8, 349	5, 400	518	----------	13, 128	138. 1
1913	13, 729	8, 267	5, 462	518	36	13, 149	136. 2
1914	13, 299	8, 101	5, 198	491	307	13, 004	132. 7
1915	13, 816	8, 849	4, 967	1, 309	147	12, 389	124. 8
1916	14, 626	9, 677	4, 949	1, 314	40	12, 865	127. 7
1917	13, 932	9, 438	4, 494	1, 310	36	12, 273	120. 1
1918	16, 405	11, 319	5, 086	2, 428	131	13, 472	130. 1
1919	16, 006	10, 577	5, 429	2, 169	72	13, 654	130. 0
1920	15, 511	9, 689	5, 822	1, 089	116	14, 557	136. 8
1921	15, 182	9, 671	5, 511	819	46	14, 448	133. 3
1922	16, 295	10, 539	5, 756	775	49	15, 247	138. 8
1923	17, 912	11, 923	5, 989	1, 005	33	16, 639	149. 0
1924	17, 867	11, 837	6, 030	777	34	17, 012	149. 6
1925	17, 005	11, 179	5, 826	592	30	16, 565	143. 6
1926	17, 245	11, 354	5, 891	465	59	16, 726	142. 8

[1] Includes small quantity of goat meat not given separately.

[2] Exports converted to dressed-weight equivalents before deduction. Adjustments made for quantities in storage annually from 1916.

Source: Bureau of Animal Industry, Department of Agriculture.

Recent Tendencies of Production and Consumption.

The production of meat in federally inspected plants in 1926 (Table 66 and Chart XVIII) totaled 11,354,000,000 pounds, which was 1.6 per cent more than the year before, and materially greater than during the years from 1919 to 1922. This increase is attributed to beef, which showed an increase of 5.8 per cent over 1925, while mutton, although still under the pre-war average, gained 7.3 per cent. Pork production again declined and was about one-fifth less than in the peak year 1923.

The marketing of hogs is decidedly seasonal, being normally heaviest from October to February. (Table 69.) As consumption and exports are more nearly uniform, adjustment is made by means of large and decidedly varying stocks. The production of pork and lard was slightly less in 1926 than in 1925 and in the last quarter of the year was 10 per cent smaller than during the corresponding quarter of 1925. (Table 68.) Stocks at the end of the year were somewhat higher than a year earlier, but were much lower than at the end of either of the three preceding years. The apparent consumption of pork and lard in 1926 was 6,152,000,000 pounds, or 2.3 per cent less than that of the preceding year. Consumption of pork products increased steadily from 1919 to 1923, but has since shown a pronounced decline.

Table 68.—Pork and Lard: Production (Federally Inspected), Cold Storage Holdings, Exports, and Apparent Consumption

NOTE.—Production is that in *federally inspected plants only* (see Table 66 for estimated production in other plants) and consumption figures are computed from the production given by deducting exports to foreign countries as shown in the table, and also shipments to noncontiguous territories of the United States not shown in the table, adding the insignificant imports, and taking account of changes in cold-storage holdings.

[In millions of pounds]

Year and quarter	Pork and lard				Pork products other than lard		Lard	
	Production	Storage, end of period	Exports	Apparent consumption	Production	Exports [1]	Production	Exports
1919	7, 068	660	2, 638	4, 603	6, 012	1, 877	1, 056	761
1920	6, 473	593	1, 537	5, 006	5, 218	924	1, 255	612
1921	6, 723	462	1, 631	5, 224	5, 292	791	1, 431	869
1922	7, 419	619	1, 487	5, 777	5, 851	720	1, 568	767
1923	9, 182	758	1, 988	7, 057	7, 266	952	1, 916	1, 035
1924	8, 820	708	1, 674	7, 201	6, 889	751	1, 930	944
1925	7, 322	515	1, 227	6, 297	5, 852	538	1, 470	687
1926	7, 273	525	1, 120	6, 152	5, 806	421	1, 467	699
1925								
January-March	2, 222	980	383	1, 570	1, 751	180	471	202
April-June	1, 726	885	297	1, 526	1, 379	121	347	175
July-September	1, 431	539	275	1, 503	1, 136	117	294	156
October-December	1, 944	515	273	1, 697	1, 586	119	358	154
1926								
January-March	2, 058	720	345	1, 509	1, 630	139	428	206
April-June	1, 787	723	279	1, 507	1, 421	101	367	178
July-September	1, 656	620	254	1, 506	1, 310	93	346	162
October-December	1, 772	525	241	1, 630	1, 442	88	329	153

[1] Includes neutral lard.

Sources: Bureau of Animal Industry, Department of Agriculture, and Bureau of Foreign and Domestic Commerce, Department of Commerce. The annual totals of production represent the sum of the monthly figures as originally reported and do not agree exactly with revised totals published by the Department of Agriculture and given in Table 66.

The receipts of cattle are also decidedly seasonal; the heaviest run is usually in September to October, and there is also a subsidiary peak in May. Cold storage is therefore an important factor in equalizing supply. Each quarter of 1926 showed greater production of beef and veal in federally inspected plants than the corresponding quarter of 1924 or 1925. (Table 70.) Stocks at the end of the year increased considerably over 1925, but were smaller than at the end of either of the three preceding years. Consumption of beef and veal was larger in 1926 than in any other year on record.

Table 69.—Production and Apparent Consumption of Federally Inspected Pork and Lard, by Months

NOTE.—Apparent consumption calculated on basis of exports, imports, and changes in stocks. Product outside of federally inspected plants is not included.

[In millions of pounds]

Month	Production							Apparent consumption [1]						
	1920	1921	1922	1923	1924	1925	1926	1920	1921	1922	1923	1924	1925	1926
January	861	748	690	904	977	951	803	510	427	480	582	656	624	567
February	521	668	592	749	844	723	605	234	315	391	488	562	483	430
March	598	530	567	853	766	548	650	327	370	375	579	519	463	512
April	455	520	507	735	691	519	572	366	419	404	477	561	451	489
May	621	559	642	736	721	556	569	478	419	473	603	598	526	496
June	619	617	718	749	737	650	647	418	468	496	578	622	549	521
July	468	528	566	703	732	512	616	425	438	468	584	650	492	471
August	386	450	523	641	549	457	564	465	423	483	618	539	492	498
September	335	420	486	552	493	461	476	484	463	547	566	565	519	537
October	405	478	550	711	560	564	480	488	528	551	698	660	592	547
November	542	565	699	873	723	607	569	467	486	555	643	608	542	540
December	662	640	878	976	1,027	774	723	345	468	555	642	662	563	542

[1] In computing consumption the exports of neutral lard are disregarded, amounting in 1926 to 18,116,371 pounds.

Sources: Bureau of Animal Industry, Department of Agriculture, and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Table 70.—Stocks and Apparent Consumption of Federally Inspected Beef and Veal and Production of Federally Inspected Lamb

NOTE.—Production and consumption of meat not federally inspected is excluded. (See Table 66.) Apparent consumption is computed on basis of exports and imports and changes in cold storage holdings. Both exports and imports in recent years are small. Cold storage holdings of lamb are normally small and consumption conforms closely to production.

[In millions of pounds]

Year	Beef and veal			Mutton and lamb production	Quarter	Beef and veal			Mutton and lamb production
	Production	Stocks, end of period	Apparent consumption			Production	Stocks, end of period	Apparent consumption	
1918	6,268	335	5,606	382	1925				
1919	5,387	299	5,179	462	January–March	1,285	116	1,307	115
1920	4,741	143	4,808	413	April–June	1,285	62	1,338	118
1921	4,453	85	4,501	493	July–September	1,389	41	1,406	119
1922	4,969	116	4,939	418	October–December	1,520	85	1,476	115
1923	5,129	106	5,129	446					
1924	5,328	143	5,282	456	1926				
1925	5,480	85	5,527	467	January–March	1,304	71	1,316	131
1926	5,711	101	5,745	501	April–June	1,404	49	1,424	117
					July–September	1,450	46	1,497	124
					October–December	1,553	101	1,497	129

Sources: Bureau of Animal Industry, Department of Agriculture, and Bureau of Foreign and Domestic Commerce, Department of Commerce. The annual totals of production given represent sums of monthly figures as originally published and do not agree exactly with revised totals given in Table 66.

Production of mutton and lamb usually varies somewhat less from month to month than that of pork and beef. The output during each quarter of 1926 except from April to June showed an increase over the corresponding quarter of the preceding year.

Receipts and Shipments.

The current changes in meat production at central points are reflected roughly in the receipts of animals at the principal markets, although such receipts involve a large and more or less varying duplication owing to reshipments either to other central markets or to farms for feeding purposes. The data are more significant in indicating short-time than long-time movements. Table 71 shows, since 1901, receipts at the nine principal markets and Table 72 shows recent statistics for all reporting markets. These tables indicate that receipts of cattle and sheep were unusually large in 1926, while hog receipts were smaller than for several years.

Table 71.—Livestock Receipts and Shipments at Nine Principal Markets

NOTE.—The markets covered are Chicago, Denver, East St. Louis, Fort Worth, Kansas City, Omaha, St. Joseph, St. Paul, and Sioux City.

[All figures in thousands]

Yearly average or year	Cattle and calves		Sheep		Swine		Horses and mules, receipts
	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	
1901-1905	9, 684	2, 426	9, 858	2, 712	18, 273	2, 430	449
1906-1910	11, 361	2, 828	11, 443	3, 184	19, 075	2, 968	416
1911-1915	10, 214	2, 776	14, 154	3, 656	20, 512	3, 786	547
1916-1920	14, 678	5, 927	14, 090	6, 347	25, 034	5, 823	625
1921-1925	14, 430	6, 068	13, 115	5, 649	27, 749	8, 795	243
1920	13, 725	5, 948	13, 591	6, 311	23, 187	6, 338	401
1921	12, 150	5, 350	13, 580	5, 297	22, 798	6, 983	186
1922	14, 590	6, 677	12, 253	5, 484	24, 601	7, 056	242
1923	15, 013	6, 484	13, 192	5, 879	32, 320	9, 597	302
1924	15, 189	6, 119	13, 382	5, 972	32, 612	11, 040	245
1925	15, 206	5, 709	13, 167	5, 615	26, 415	9, 300	242
1926	15, 242	5, 883	14, 379	6, 025	23, 414	8, 413	211

Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 72.—Livestock Receipts and Shipments at All Reporting Markets

NOTE.—Stocker and feeder shipments of hogs for the years 1920 to 1926 are as follows: 1920, 728,000; 1921, 499,000; 1922, 593,000; 1923, 820,000; 1924, 496,000; 1925, 532,000, and 1926, 917,000. All figures in table are expressed in thousands. The data cover from 64 to 76 markets

Year and quarter	Cattle and calves				Hogs			Sheep and lambs			
	Receipts	Shipments		Local slaughter	Receipts	Shipments, total	Local slaughter	Receipts	Shipments		Local slaughter
		Total	Stocker and feeder						Total	Stocker and feeder	
1920	22, 197	9, 831	4, 102	12, 195	42, 121	15, 298	26, 761	23, 538	12, 563	5, 180	10, 981
1921	19, 787	8, 600	3, 504	11, 078	41, 101	14, 709	26, 335	24, 168	11, 333	3, 095	12, 858
1922	23, 218	10, 665	4, 864	12, 435	44, 068	15, 332	28, 737	22, 364	11, 677	4, 167	10, 669
1923	23, 211	10, 058	4, 553	13, 034	55, 330	19, 142	36, 172	22, 025	11, 730	4, 478	10, 271
1924	23, 695	9, 691	3, 978	13, 850	55, 414	20, 203	35, 188	22, 201	11, 794	4, 676	10, 399
1925	24, 067	9, 438	3, 823	14, 462	43, 929	16, 266	27, 665	22, 100	11, 710	4, 332	10, 399
1926	23, 872	9, 404	3, 712	14, 350	39, 772	15, 173	24, 580	23, 868	12, 450	4, 623	11, 387
1925											
January-March	5, 259	1, 908	613	3, 296	14, 191	4, 995	9, 205	4, 359	2, 033	351	2, 333
April-June	5, 310	1, 800	641	3, 476	10, 036	3, 767	6, 268	4, 833	2, 274	424	2, 571
July-September	6, 372	2, 530	1, 030	3, 760	8, 088	3, 039	5, 035	6, 390	3, 419	1, 471	2, 918
October-December	7, 127	3, 198	1, 539	3, 930	11, 614	4, 465	7, 157	6, 518	3, 985	2, 087	2, 578
1926											
January-March	5, 202	1, 779	581	3, 378	11, 255	4, 354	6, 900	4, 729	2, 004	345	2, 720
April-June	5, 476	1, 929	593	3, 524	9, 315	3, 476	5, 830	5, 132	2, 452	492	2, 684
July-September	6, 215	2, 534	971	3, 629	8, 477	3, 215	5, 257	7, 295	4, 128	1, 920	3, 117
October-December	6, 981	3, 161	1, 564	3, 818	10, 725	4, 124	6, 596	6, 713	3, 866	1, 866	2, 865

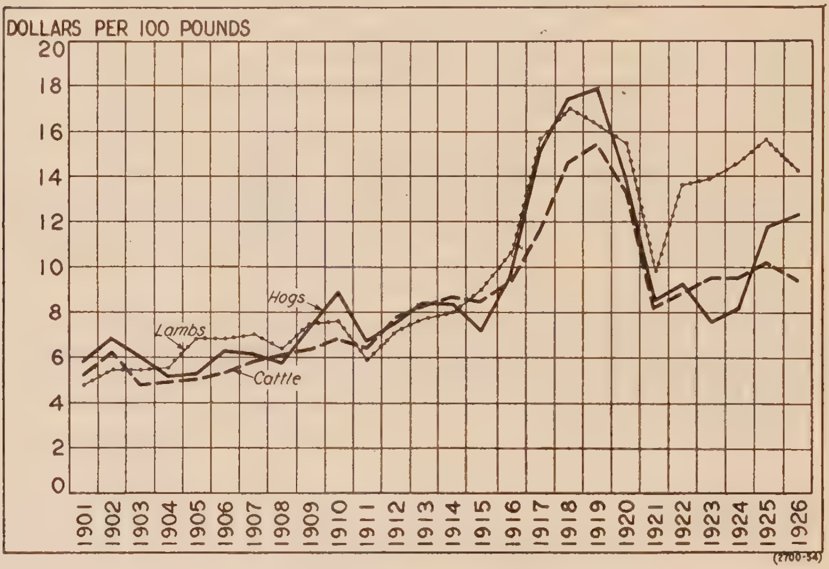
Source: Bureau of Agricultural Economics, Department of Agriculture.

PRICE MOVEMENTS AND MARKET CONDITIONS

General comparisons between the price movement of livestock, on farms and at central markets, and that of crops and other animal products, have already been presented. (Tables 15 to 19.) More detailed analyses of the prices at Chicago, the most important market, are shown in Tables 73 and 74, while Chart XIX shows their trend.

Down to 1914, prices of livestock rose gradually from the low levels of the nineties. They advanced rapidly during the war years, reaching levels roughly double those of 1913. The postwar decline was greater than that in most commodities, and the average prices of cattle, hogs, and sheep in 1921 stood at about the pre-war figures. Prices of hogs, which were relatively low from 1921 to 1924, had a substantial advance beginning in the summer of 1924 and continuing through 1926; those of cattle have shown much less advance. Prices of sheep and lambs, which increased steadily from 1921 to 1925, declined in 1926.

Chart XIX.—PRICES OF CATTLE, HOGS, AND LAMBS, AT CHICAGO



Monthly prices of hogs (Table 74) showed a general upward tendency from June, 1924, to June, 1926, reaching an average of 14.01 cents in the latter month. They ranged somewhat lower during the last six months of 1926, but were higher in December than a year earlier. For the year as a whole the average price was 4 per cent higher than for 1925.

Table 73.—Average Prices of Livestock at Chicago, by years

NOTE.—Annual averages for hogs are weighted according to monthly volume of sales; others are simple averages. For cattle the quotations represent bulk of sales of good beef steers, 1,100 pounds and up; for hogs, all grades; for sheep and lambs all grades of native and western.

Yearly average or year (calendar)	Price, cents per pound					Index, 1913=100				
	Cattle	Calves	Hogs	Sheep	Lambs	Cattle	Calves	Hogs	Sheep	Lambs
1901–1905	5. 23	5. 93	5. 82	(1)	5. 63	63. 7	58. 1	69. 7	(1)	73. 2
1906–1910	6. 07	6. 90	6. 86	5. 06	7. 05	73. 9	67. 6	82. 2	97. 5	91. 7
1909–1913	7. 12	8. 50	7. 77	4. 79	7. 16	86. 7	83. 3	93. 1	92. 3	93. 1
1911–1915	7. 90	9. 45	7. 60	5. 13	7. 57	96. 2	92. 6	91. 0	98. 8	98. 4
1916–1920	12. 87	14. 42	14. 78	10. 25	15. 04	156. 8	141. 4	177. 0	197. 5	195. 6
1921–1925	9. 23	9. 50	9. 04	7. 02	13. 53	112. 4	93. 1	108. 3	135. 3	175. 9
1913	8. 21	10. 20	8. 35	5. 19	7. 69	100. 0	100. 0	100. 0	100. 0	100. 0
1919	15. 45	16. 83	17. 85	10. 47	16. 31	188. 2	165. 0	213. 8	201. 7	212. 1
1920	13. 32	14. 58	13. 91	9. 49	15. 47	162. 2	142. 9	166. 6	182. 9	201. 2
1921	8. 16	9. 36	8. 51	5. 13	9. 86	99. 4	91. 8	101. 9	98. 8	128. 2
1922	8. 82	9. 15	9. 22	7. 15	13. 68	107. 4	89. 7	110. 4	137. 8	177. 9
1923	9. 50	9. 42	7. 55	7. 10	13. 89	115. 7	92. 4	90. 4	136. 8	180. 6
1924	9. 49	9. 08	8. 11	7. 57	14. 57	115. 6	89. 0	97. 1	145. 9	189. 5
1925	10. 19	10. 47	11. 81	8. 16	15. 66	124. 1	102. 6	141. 4	157. 2	203. 6
1926	9. 46	11. 61	12. 34	7. 25	14. 26	115. 2	113. 8	147. 8	139. 7	185. 4

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[1] Not available.

Source: Bureau of Agricultural Economics, Department of Agriculture.

Cattle prices showed considerably less fluctuation in 1926 than in 1925 (Chart XX and Table 74), ranging from a low average price of $9.12 in May to a high average of $9.85 in August. For the year as a whole the average price was $9.46, which was 7 per cent lower than in the preceding year.

Prices of lambs, like beef, showed a tendency to lower levels in 1926, declining 10 per cent on the average and reaching their low point for the year in December.

Table 74.—Chicago Prices of Cattle, Hogs, and Lambs, by Months

NOTE.—The basis of the quotations is the same as for Table 73. The minimum month of each year is indicated by an asterisk (*); the maximum by a dagger (†).

[Cents per pound]

Month	Cattle (steers)				Hogs				Lambs			
	1923	1924	1925	1926	1923	1924	1925	1926	1923	1924	1925	1926
January	9. 17	9. 14	*9. 28	9. 59	8. 29	7. 10	*10. 38	12. 02	14. 69	13. 53	†18. 28	15. 28
February	8. 86	9. 33	9. 54	9. 50	8. 02	7. 06	11. 06	12. 45	†14. 85	14. 95	17. 59	13. 78
March	*8. 83	9. 59	10. 06	9. 46	8. 18	7. 35	†13. 55	12. 20	14. 56	16. 06	16. 28	13. 48
April	9. 01	9. 83	10. 12	9. 22	8. 08	7. 36	12. 55	12. 33	14. 42	16. 22	14. 85	14. 38
May	9. 41	9. 83	10. 03	*9. 12	7. 53	7. 34	12. 06	13. 55	14. 12	15. 23	*13. 06	15. 30
June	9. 94	9. 53	10. 28	9. 59	6. 92	*7. 04	12. 57	†14. 01	14. 81	14. 12	15. 86	†16. 66
July	10. 05	†9. 91	†11. 29	9. 40	7. 04	7. 68	13. 46	12. 51	14. 22	13. 79	15. 11	14. 31
August	†10. 48	9. 54	11. 26	9. 33	7. 65	9. 38	12. 66	*11. 48	12. 89	13. 57	14. 88	14. 20
September	10. 12	9. 47	10. 73	†9. 85	†8. 35	9. 57	12. 52	12. 03	13. 52	*13. 38	15. 19	14. 05
October	9. 90	9. 57	10. 28	9. 47	7. 42	†9. 91	11. 31	12. 72	12. 93	13. 52	15. 20	13. 88
November	9. 36	9. 18	9. 74	9. 34	*6. 85	8. 97	11. 28	11. 80	*12. 75	14. 03	15. 44	13. 25
December	8. 92	*8. 98	9. 71	9. 60	6. 87	9. 38	10. 97	11. 57	12. 96	†16. 47	16. 15	*12. 57

Source: Bureau of Agricultural Economics, Department of Agriculture.

The wide variation in grades of meat and in the prices of different cuts make impossible, in a condensed review, any close comparison between prices of live animals and those of meats at any given time.

Even relative movements are not very closely comparable. The wholesale prices of selected meat products are shown in Table 75. Beef products were lower in 1926 than the year before, while there was a wide variance in the movement of prices of pork products.

Chart XX.—MONTHLY PRICES OF LIVESTOCK AT CHICAGO

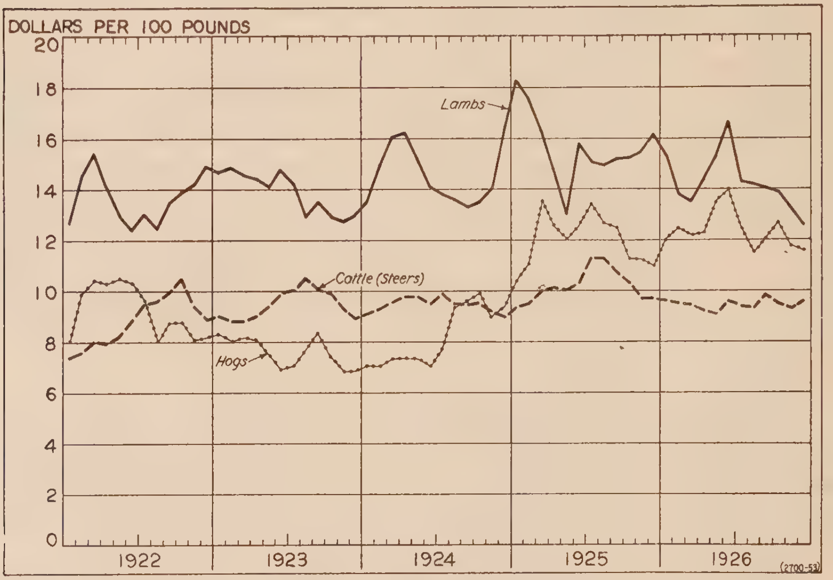

Table 75.—Wholesale Prices of Meats and Lard, with Comparative Prices for Hogs and Cattle

[Price per pound]

Yearly average or year	Beef, fresh		Hams, smoked, Chicago	Pork, cured, short clear sides, Chicago	Pork, fresh, loins, western New York	Lard, prime, contract, New York	Livestock	
	Carcass, good native steers, Chicago	Native sides, New York					Steers, good to choice, Chicago	Hogs, heavy, Chicago
1891–1895	(1)	$0.079	$0.106	$0.079	(1)	$0.078	$0.048	$0.051
1896–1900	(1)	.078	.092	.059	(1)	.054	.049	.040
1901–1905	(1)	.083	.114	.090	(1)	.086	.055	.059
1906–1910	[2] $0.110	.091	.132	.106	(1)	.103	.061	.069
911–1915	.128	.121	.154	.116	[3] $0.154	.101	.083	.076
1916–1920	.198	.186	.286	.235	.278	.219	.142	.151
1921–1925	.164	.148	.243	.153	.228	.130	.097	.093
1913	.130	.125	.166	.127	.152	.110	.085	.084
1920	.230	.206	.334	.207	.315	.200	.145	.142
1921	.163	.148	.268	.135	.259	.111	.088	.085
1922	.150	.138	.264	.141	.236	.115	.094	.094
1923	.158	.145	.212	.120	.190	.121	.100	.077
1924	.171	.151	.202	.144	.198	.133	.097	.085
1925	.180	.159	.271	.223	.258	.168	.107	.123
1926	.164	.151	.308	.201	.276	.150	.095	.123
Per cent change:								
1926 from 1913	+26.2	+20.8	+85.5	+58.3	+81.6	+36.4	+12.0	+47.4
1926 from 1925	−8.9	−5.0	+13.7	−9.9	+7.0	−10.7	−10.7	+.7

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(1) Not available. [2] Average for three years, 1908–1910. [3] Average for three years, 1913–1915.

Source: Bureau of Labor Statistics, Department of Labor.

EXPORTS OF MEATS AND ANIMAL FATS

Pork and hog fat have been highly important factors in our export trade at all times. Formerly beef products were important, but as population grew, cost of production of beef advanced and exports consequently dwindled. During the war, with the extraordinary demand from Europe, beef exports again attained a high figure, while pork exports also increased rapidly. Since the war there has been almost complete cessation of the exportation of beef except that in pickled form. Pork exports have also shown a marked decline from the war peak, and were less than half as large in 1926 as in 1923. Exports of beef and mutton products were only about one-third as large in 1926 as before the war, while pork exports were in about the same volume as the average of the years 1910–1914. (Table 76.)

Exports of animal fats were not stimulated by the war, but rather fell off owing to the closing of the important German market. However, exports of lard, the principal item, have averaged during postwar years much above pre-war figures, but like those of pork meats have declined sharply from 1923 to 1925, with an increase in 1926 of approximately 10,000,000 pounds over 1925. Exports of all other animal fats were much smaller in 1926 than before the war.

Table 76.—Exports of Principal Meats and Animal Fats

[Quantity in thousands of pounds and value in thousands of dollars. Fish oils not included]

Product	Quantity						Value	
	1910–1914,[1] average	1921–1925, average	1923	1924	1925	1926	1925	1926
Beef and veal [2]	71,718	30,871	28,161	26,051	26,462	24,777	3,447	3.716
Pork, total	403,813	717,449	928,224	702,337	519,435	402,665	103,639	86,398
Bacon [3]	182,474	345,934	456,797	314.103	201,575	161,685	39,119	31,169
Ham and shoulders [4]	166,813	296,758	372,093	323,877	265,883	189,906	54,941	44,918
Fresh or frozen	2,024	38,075	54,691	32,803	19,821	15,564	3,497	3,196
Pickled	48,275	33,785	41,841	28,280	27,453	29,047	4,398	4,785
Canned	4,227	2,898	2,801	3,274	4,702	6,462	1,684	2,330
Mutton and lamb	3,539	2,835	2,087	1,445	1,464	1,171	313	267
Sausage, total	6,369	10,636	10,735	12,097	11,737	8,043	3,177	2,345
Oleo oil	[5] 116,225	105,534	98,955	99,380	91,972	96,902	11,814	11,785
Oleomargarine	3,268	1,703	1,792	774	774	1,578	134	218
Tallow and oleo stock	29,009	39,326	45,430	47,759	29,702	22,787	3,152	2,390
Lard	474,355	860,839	1,035,382	944,095	688,829	698,971	118,090	108,600
Neutral lard	[6] 43,572	22,959	24,129	27,365	18,854	18,116	3,548	3,048
Lard compound [7]	67,319	18,683	7,451	7,382	14,091	10,581	2,041	1,485

[1] Fiscal years.
[2] Includes fresh or frozen, pickled or cured, and canned.
[3] Includes Cumberland sides.
[4] Includes Wiltshire sides.
[5] Includes "neutral lard" for 1910.
[6] Four-year average, 1911–1914.
[7] Prior to 1922 includes "other substitutes for lard," whether vegetable or animal.

Source: Bureau of Foreign and Domestic Commerce.

Table 77.—Export of Meat and Animal Fat

[Quantity in thousands of pounds and value in thousands of dollars. Fish oils not included]

Yearly average or year [1]	Values, all classes combined			Yearly average or year [1]	Quantity and value of meats and fats shown in Table 76			
					Meat		Fat and oil	
	Total	Meat	Fat, grease, and oil		Quantity	Value	Quantity	Value
1871–1875	59, 628	33, 909	25, 773	1910–1914	485, 439	59, 074	725, 033	76, 674
1876–1880	101, 994	66, 498	35, 496	1921–1925	761, 792	124, 275	1, 049, 045	137, 956
1881–1885	106, 438	68, 946	37, 492					
1886–1890	94, 260	59, 092	35, 168	1910	478, 650	54, 264	596, 375	66, 624
1891–1895	132, 119	80, 986	51, 133	1911	465, 976	57, 564	760, 034	79, 715
1896–1900	152, 411	99, 041	53, 370	1912	553, 389	63, 345	826, 643	80, 124
1901–1905	179, 574	108, 641	70, 933	1913	474, 231	59, 791	757, 664	82, 321
1906–1910	177, 294	89, 968	87, 326	1914	454, 952	60, 407	684, 448	74, 584
1911–1915	160, 453	76, 647	83, 806	1915	893, 069	121, 197	677, 508	72, 853
1916–1920	564, 189	397, 321	166, 868	1916	1, 287, 305	188, 910	609, 285	79, 545
1921–1925	279, 841	133, 502	146, 339	1917	1. 286, 118	259, 475	475, 877	94, 635
				1918	2, 409, 587	648, 217	681, 341	175, 443
1919	1, 017, 187	690, 897	326, 290	1919	2, 149, 972	661, 744	1, 046, 300	312, 288
1920	464, 996	273, 409	191, 587	1920	1, 061, 168	254, 002	779, 157	180, 499
1921	296, 833	150, 878	145, 955	1921	795, 188	139, 732	1, 086, 204	137, 827
1922	253, 086	134, 919	118, 167	1922	743, 536	125, 650	961, 936	111, 521
1923	308, 247	149, 968	158, 279	1923	969, 207	139, 689	1, 213, 138	150, 543
1924	272, 842	113, 844	158, 998	1924	741, 929	105, 728	1, 127, 355	149, 624
1925	268, 197	117, 899	150, 298	1925	559, 098	110, 577	844, 222	138, 779
1926	234, 844	98, 733	136, 111	1926	436, 656	92, 726	848, 935	127, 525

[1] Fiscal years through 1915; calendar years thereafter.

Source: Bureau of Foreign and Domestic Commerce.

Chart XXI.—EXPORTS OF MEATS AND ANIMAL FATS

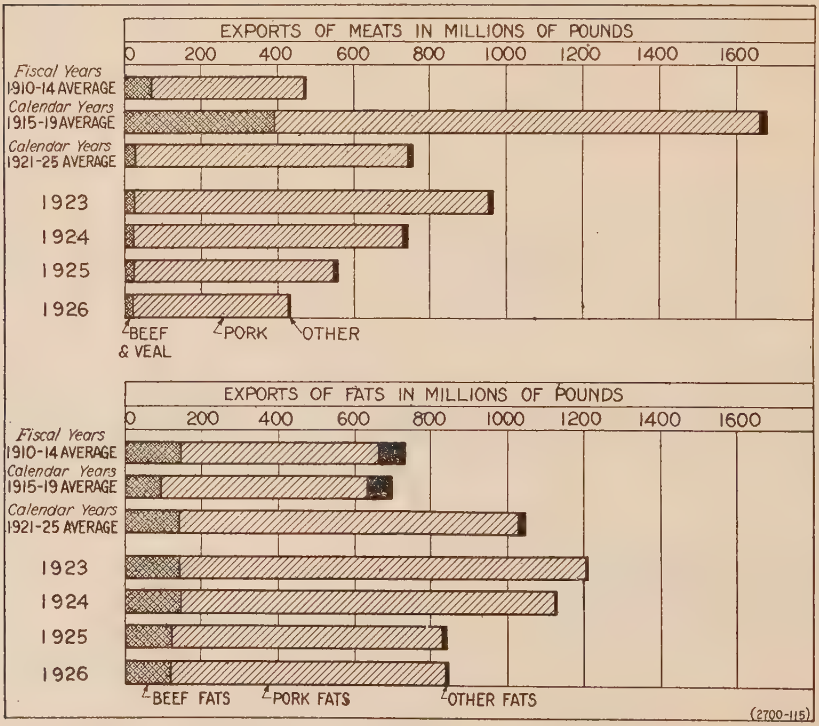

Table 78.—Exports of Principal Meats and Fats, by Countries of Destination

[In thousands of pounds]

Country	Beef and veal, pickled or cured		Hams and shoulders, cured [1]			Bacon [2]			Pickled pork	
	1925	1926	1924	1925	1926	1924	1925	1926	1925	1926
Total	**20, 930**	**19, 653**	**323, 877**	**265, 883**	**189, 906**	**314, 103**	**201, 575**	**161, 685**	**27, 453**	**29, 047**
Belgium	457	372	18, 706	8, 457	1, 558	9, 713	5, 253	3, 796	235	158
Germany	359	354	959	311	143	45, 517	14, 779	9, 982	522	253
United Kingdom	1, 428	1, 023	261, 624	224, 326	166, 019	129, 542	118, 767	94, 881	2, 827	3, 360
Canada	648	619	10, 259	7, 526	6, 443	5, 827	3, 700	4, 843	6, 743	7, 150
Newfoundland and Labrador	6, 725	7, 343	879	643	655	680	711	677	3, 679	3, 632
Cuba	127	102	15, 377	14, 539	7, 281	28, 673	22, 704	20, 631	4, 702	7, 627
Netherlands	62	60	3, 122	1, 033	441	20, 137	4, 976	4, 251	135	68
Norway	1, 369	1, 086	1, 492	1, 509	847	9, 857	8, 589	4, 747	1, 520	1, 044
Mexico	11	7	1, 077	1, 038	837	437	407	334	5	6
Other countries	9, 744	8, 687	10, 382	6, 501	5, 682	63, 720	21, 689	17, 543	7, 085	5, 749

Country	Oleo oil		Lard			Neutral lard			Lard compounds [3]	
	1925	1926	1924	1925	1926	1924	1925	1926	1925	1926
Total	**91, 972**	**96, 902**	**944, 095**	**688, 829**	**698, 971**	**27, 365**	**18, 854**	**18, 116**	**14, 091**	**10, 581**
Belgium	1, 940	2, 236	32, 556	16, 680	11, 796	932	548	524	12	134
Denmark	2, 694	3, 574	7, 159	4, 013	3, 678	1, 358	1, 042	663	--------	-------
Sweden	1, 580	1, 044	4, 261	2, 468	1, 901	1, 332	1, 010	1, 006	102	5
Germany	18, 175	28, 262	308, 541	193, 004	199, 534	4, 583	4, 702	4, 791	38	340
Italy	505	618	63, 135	28, 507	5, 901	--------	78	27	--------	-------
Netherlands	31, 945	27, 434	66, 150	36, 944	48, 365	9, 907	4, 452	4, 616	15	544
Norway	7, 055	5, 904	1, 095	747	856	3, 023	1, 368	1, 099	291	355
United Kingdom	17, 040	18, 625	237, 754	214, 772	224, 928	3, 625	3, 721	3, 423	689	757
Canada	165	236	11, 455	10, 595	12, 583	148	119	105	184	99
Mexico	64	114	39, 633	46, 529	45, 379	84	42	42	967	870
Cuba	983	1, 142	93, 945	76, 973	79, 654	1, 027	492	516	6, 561	4, 582
Other countries	9, 826	7, 713	78, 411	57, 597	64, 396	1, 346	1, 280	1, 304	5, 232	2, 895

[1] Includes Wiltshire sides.
[2] Includes Cumberland sides.
[3] Only those containing animal fats.

Source: Bureau of Foreign and Domestic Commerce.

Table 77 shows that exports of meat and animal oils and fats were both expanding rapidly until the early part of the present century. Meat exports, however, were considerably curtailed in the decade preceding the war and the growth in exports of animal fats was much moderated. The war caused a great expansion in both the quantity and value of our exports of meat, but with the restoration of normal conditions these have again declined. A downward tendency has also been evident in our exports of animal oils and fats during recent years. (Chart XXI.) Exports of meats aggregated about 437,000,000 pounds in 1926, which was 22 per cent less than in 1925 and was less than one-half the quantity exported in 1923. Pork, which makes up the bulk of the exports of meats, goes chiefly to northwestern Europe, the United Kingdom being far the largest market. Since the peak year of 1923 our exports of pork have shown a steady downward movement, as a result of the increased level of prices in the home markets and the increased production abroad. (Table 78.)

Exports of animal fats in 1926 showed a slight increase over 1925, but were far smaller than in the peak year 1923. The United Kingdom and Germany are the largest consumers of American lard, and are among the few European countries which show an increase over 1925. As compared with previous years, Italy has practically ceased purchasing American animal fats and oils. A decided increase appeared during 1926 in our exports of oleo oil to Germany.

DAIRY AND POULTRY PRODUCTS

PRODUCTION

The number of dairy cows in the United States decreased in 1926 and there was a resultant decrease in the quantity of dairy products. The number of dairy cows increased from 21,788,000 in 1922 to 22,481,000 in 1925 and then dropped to 21,824,000 on January 1, 1927. This brought a reduction in butter and cheese production in each of the last two years and in condensed and evaporated milk production in 1926.

Table 79.—Production of Butter, Cheese, and Condensed Milk

[In millions of pounds]

Year	Butter			Cheese			Condensed and evaporated milk
	Total	Produced on farms	Produced in factories	Total	Produced on farms	Produced in factories [1]	
CENSUS RETURNS							
1879	806	777	29	243	27	216	13
1889	1,205	1,024	181	257	19	238	38
1899	1,493	1,072	421	299	16	283	187
1909	1,622	995	627	320	9	311	495
1919	1,647	708	939	481	6	475	2,154
1921	(2)	(2)	1,132	(2)	(2)	424	1,766
1923	(2)	(2)	1,320	(2)	(2)	567	1,835
1925	2,099	643	1,456	(2)	(2)	558	1,814
DEPARTMENT OF AGRICULTURE ESTIMATES							
1921	1,705	650	1,055	389	6	383	1,464
1922	1,779	625	1,154	407	5	402	1,431
1923	1,862	610	1,252	434	4	430	1,775
1924	1,956	600	1,356	473	5	468	1,701
1925	1,952	590	1,362	444	5	503	1,758
1926	1,946	580	1,345	(2)	(2)	418	1,727
January-September:							
1925	1,553	473	1,080	(2)	(2)	401	1,423
1926	1,585	465	1,120	(2)	(2)	364	1,395

[1] Includes cottage, pot, and bakers' cheese; census figure for this cheese in 1925 is 50,161,000 pounds, while the Department of Agriculture's estimate is 59,485,000 pounds for 1925.

[2] Data not available.

Sources: Bureau of the Census, Department of Commerce, and Bureau of Agricultural Economics, Department of Agriculture.

The products of the poultry industry include eggs, egg products, and dressed and live poultry, but eggs account for the major part of the return from this industry. Egg production amounts to about 2,000,000,000 dozen a year. Receipts of eggs at five markets combined were 15,511,000 cases in 1926, which was very slightly less than in the previous year, and cold-storage holdings were also lower than in 1925. The market movement of eggs is heaviest in April, May, and June.

The surplus eggs and those which are good but not suitable for marketing in the shell are broken and either frozen or dried as a whole egg, or with the yolks and albumen separated. The breaking and freezing of eggs has increased in the last few years and now a considerable quantity is produced. These products are used mainly by bakers and confectioners.

Dressed and live poultry receipts at the six principal markets were higher in 1926 than in 1925, the former amounting to 367,139,300 pounds and the later to 15,490 carloads in 1926. The largest poultry movement begins in October and usually terminates in January.

Table 80.—Number and Quantity and Price of Chickens and Eggs Produced

Year	Number of chickens	Price per fowl	Number of eggs	Price per dozen
	Thousands	*Cents*	*1,000 dozen*	*Cents*
1919	473,201	81.60	1,654,045	40.88
1920	474,700	86.95	1,647,043	44.03
1921	549,700	71.37	1,888,318	29.26
1922	579,000	65.36	1,970,755	25.86
1923	648,900	74.27	2,176,558	27.27
1924	545,848	76.83	1,913,245	29.89

Sources: Statistics for 1919 and 1924, Bureau of the Census, Department of Commerce; other years, Bureau of Agricultural Economics, Department of Agriculture.

PRICES

The prices of dairy and poultry products are seasonal and also fluctuate with volume of production. Table 81 shows that dairy products are highest from October to December or January and are lowest from April to July. The wholesale price of butter at the five principal markets in 1926 varied from 39.2 cents a pound in April to 52.8 cents a pound in December. The average price for the year was 44 cents a pound, 2 cents a pound lower than in the previous year.

The wholesale price of cheese in the five leading markets in 1926 varied from about 20 to 25 cents a pound with an average price for the year of 23 cents a pound, which was the same as in 1925.

Prices of condensed milk during 1926 varied from $5.68 a case in December to $6 a case in January. The monthly average price was $5.86, 5 cents a case lower than in 1925. Evaporated milk had a monthly average price of $4.42, 9 cents a case higher than in the previous year.

The monthly farm price of eggs averaged lower in 1926 than in 1925. Peak prices are reached normally during the winter months when production is lowest. Prices varied during 1926 from 24.1 cents a dozen in March to 47.6 cents in December. The average farm price for the year ended March 15, 1926, was 28.3 cents a dozen higher than for the year ended March 15, 1925. Farm prices for chickens (Table 82) were uniformly higher throughout 1926 than in 1925, the highest prices being paid in April, May, June, and July. Prices ranged from 23.9 cents a pound in June to 19.8 cents a pound in December. Prices of eggs at five of the principal markets, shown in Table 83, were lower in the first half of 1926 than a year earlier. During the last half of the year they were higher than in 1925 at San Francisco and Chicago, but were slightly lower in eastern markets.

Table 81.—Average Wholesale Price of Butter and Cheese at Five Markets

[Cents per pound]

NOTE.—The markets covered are New York, Chicago, Boston, San Francisco, and Philadelphia. The averages are without any weighting for relative importance; weighting, however, would change them only slightly. Quotations are for 92-score creamery butter and No. 1 Fresh Twins American cheese.

Year	Butter		Cheese		Month	Butter (five markets)					Cheese (five markets)				
	Five markets	New York	Five markets	New York		1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
1910	(1)	30	(1)	16	January	36.5	50.6	51.9	41.4	44.7	20.9	25.6	22.5	22.8	24.5
1913	(1)	32	(1)	15	February	37.5	49.2	49.9	41.2	44.9	20.8	24.9	22.1	22.9	24.3
1916	(1)	34	(1)	19	March	37.1	48.5	46.2	46.7	40.8	19.9	24.1	21.0	22.6	22.2
1917	(1)	43	(1)	24	April	36.3	44.5	38.4	43.7	39.2	18.3	21.6	18.2	22.4	20.0
1918	(1)	51	(1)	27	May	36.0	41.7	38.3	42.0	40.4	17.5	22.3	18.4	21.4	19.9
1919	59	61	31	32	June	37.7	40.3	40.1	42.9	40.9	18.8	23.8	19.5	22.6	20.9
1920	59	61	28	29	July	36.7	39.7	39.6	43.4	40.3	20.0	23.4	19.6	23.0	21.2
1921	43	43	22	21	August	36.2	44.1	38.5	44.8	42.2	20.0	24.4	19.7	24.1	21.8
1922	40	41	21	[2] 20	September	41.0	46.4	34.2	48.8	44.6	21.6	25.6	20.3	24.1	23.1
1923	46	47	24	[3] 25	October	46.6	47.9	38.5	55.4	46.2	24.7	25.6	19.7	25.2	24.6
1924	42	43	20	21	November	49.4	51.1	41.8	51.1	49.3	24.9	24.8	20.2	25.4	24.5
1925	46	45	23	24	December	52.6	53.0	44.0	48.9	52.8	25.9	23.0	22.1	24.6	24.9
1926	44	44	23	23											

[1] Not available.
[2] Average for 9 months, January to September.
[3] Average for 11 months, January to November.

Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 82.—Farm Prices of Chickens and Eggs

NOTE.—Farm prices represent weighted averages for the entire country; the annual averages represent production years ending June 15 for chickens and March 15 for eggs, and are weighted according to volume marketed each month

Yearly average or year ending June and Mar. 15—	Chickens	Eggs	Month	Chickens	Eggs
			1925		
1911–1915	11.2	19.1	March	20.0	23.9
1916–1921	19.2	31.9	June	21.6	26.1
1922–1925	18.8	25.3	September	20.4	31.1
			December	19.5	48.1
1920	24.2	41.8			
1921	22.8	39.3	1926		
1922	19.3	25.3	March	21.9	24.1
1923	18.2	24.7	June	23.9	25.7
1924	18.3	25.2	September	21.4	31.5
1925	19.2	26.1	December	19.8	47.6
1926	20.7	28.3			

Source: Bureau of Agricultural Economics, Department of Agriculture.

Table 83.—Market Prices of Eggs

[In cents per dozen]

NOTE.—Annual averages represent calendar years and are unweighted, thus giving undue influence to the small sales at high prices during the winter. The grades of eggs are as follows: Western firsts, Boston; fresh firsts, New York and Chicago; Western extra firsts, Philadelphia; and fresh extras, San Francisco.

Yearly average or year (calendar)	Boston	New York	Philadelphia	Chicago	San Francisco
1910–1914	25	25	26	22	32
1915–1920	42	43	44	38	47
1921–1925	37	37	40	34	38
1919	52	53	55	48	60
1920	57	57	59	52	61
1921	41	41	43	36	45
1922	35	35	37	30	39
1923	35	35	38	31	33
1924	36	36	40	34	34
1925	40	40	43	37	38
1926	36	36	39	34	36

Month	Boston	New York	Philadelphia	Chicago	San Francisco
1925					
March	31	30	32	29	31
June	32	33	35	30	35
September	37	37	42	34	41
December	51	51	51	44	41
1926					
March	29	29	30	27	26
June	30	30	34	28	31
September	37	38	42	36	44
December	50	48	52	44	44

Source: Bureau of Agricultural Economics, Department of Agriculture.

FOREIGN TRADE

Butter and Cheese.

The volume of the foreign trade of the United States in dairy and poultry products (Table 84) is small compared with domestic production. The total value of exports of fresh milk, butter, and cheese have declined from $6,466,000 in 1921 to $3,696,000 in 1926, a decrease of 43 per cent. This decrease in exports may be attributed in part to a further development of the dairy industry in practically all countries. Exports of fresh milk and cream are negligible, but imports increased from 4,147,000 gallons in 1922 to 12,786,000 gallons in 1926. There was an increase of 817,000 pounds in imports of butter in 1926 over the previous year, even though the duty on imported butter had been raised in April from 8 cents to 12 cents a pound. The price of butter in the United States was above the London parity, and much butter which under normal conditions would have been marketed in England was diverted to the United States. Exports of butter were slightly lower in 1926 than in 1925.

Imports of cheese in 1926 were the largest on record. Italy supplies about one-half of the imports and large quantities also come from the Netherlands, France, and Greece. These imports are largely special types and are consumed for the most part by emigrants from those countries. Exports of cheese in 1926 were the lowest since 1914 and amounted to 3,903,000 pounds. This was a reduction of more than one-half as compared with the 9,109,000 pounds exported in 1925.

Poultry Products.

Larger quantities of poultry products are imported than exported. In 1926 the imports of all poultry products had a value of $10,086,000 and the exports $9,144,000. During the past five years there was a constant decrease in exports, while imports increased. Eggs, which are the principal item of the export trade in poultry products and constitute about 85 per cent of its value, are shipped mainly to Cuba, Argentina, Canada, and Mexico. Very few eggs are imported into the United States. Large quantities of egg products, however, are imported annually, coming principally from China, either directly or through the United Kingdom. These imports in 1926 amounted to 25,738,000 pounds and had a value of $7,185,000.

Dressed poultry and game exports have declined from 5,786,000 pounds in 1922 to 3,406,000 pounds in 1926, owing to increased production in the countries of continental Europe, which have sent larger shipments to the United Kingdom, supplementing the United States in that market. The United Kingdom takes over 70 per cent of the dead poultry exported from the United States. Imports of dead poultry into the United States in 1926 amounted to 6,027,000 pounds, being the largest on record, while imports of live poultry amounted to about 2,000,000 pounds and came principally from Canada.

Table 84.—Imports and Exports of Dairy Products and Eggs

NOTE.—Quantities in thousands of pounds; sweet or sour milk and cream in thousands of gallons; eggs in the shell, thousands of dozens; values in thousands of dollars. In addition to articles listed there are small exports of fresh milk and cream, and of preserved eggs.

Item	Quantity							Value		
	1910–1914,[1] average	1921–1925, average	1922	1923	1924	1925	1926	1924	1925	1926
DOMESTIC EXPORTS										
Butter	4,278	7,698	10,938	5,846	8,257	5,343	5,483	3,429	2,411	2,529
Cheese	4,916	7,720	5,007	8,331	4,299	9,190	3,903	1,118	2,420	1,115
Condensed milk (sweetened)	15,774	62,962	56,804	57,378	64,025	42,707	38,711	9,250	6,606	6,020
Evaporated milk (unsweetened)		142,143	130,692	136,886	142,254	105,056	75,838	12,885	10,615	7,832
Powdered milk		5,450	6,190	2,437	5,529	3,649	2,659	827	717	774
Eggs in shell	13,170	30,337	34,620	30,659	28,117	24,999	26,634	7,438	7,534	7,682
IMPORTS										
Butter [2]	2,480	15,175	6,957	23,741	19,405	7,212	8,029	7,047	2,646	2,799
Cheese [2]	49,220	51,888	46,573	64,420	59,176	62,403	78,417	17,299	17,349	21,084
Milk and cream, sweet or sour	-------	7,660	4,147	7,558	9,390	12,594	12,786	6,969	8,834	9,303
Milk, condensed, evaporated, malted, etc	(3)	9,049	5,294	10,398	8,489	12,394	9,376	1,145	1,281	1,059
Eggs and yolks, preserved	999	18,764	18,239	16,253	15,958	25,470	18,627	3,339	4,944	4,224
Eggs, albumin, dried, etc	-------	6,107	6,570	7,046	3,764	8,517	7,110	2,323	3,881	2,961
Eggs in shell	2,149	1,097	1,019	412	383	609	298	116	163	104

[1] Fiscal years. [2] Substitutes for butter and cheese included prior to 1924. [3] No data.

Source: Bureau of Foreign and Domestic Commerce.

CANNED AND DRIED FRUITS AND VEGETABLES

PRODUCTION AND MARKETING CONDITIONS

The most recent statistics of production for canned and dried fruits and vegetables are those published by the Bureau of the Census for the year 1925. In other parts of the Foodstuffs Section of the Yearbook statistics of canned meats, milk, and fish are given. Table 85 gives a comparison of the development of the canning and preserving industry for a period of nearly 40 years. The total value of the canned and dried fruit and canned vegetable production amounted to $616,000,000 in 1925, which was about eleven times as great as in 1899. The development of a number of individual lines of canning since 1914 (Table 86) shows that, with but few exceptions, there have been continual increases in both the quantity and value of products. The fruit-canning industry has shown a particularly large increase during the past decade; output in 1925 was over two and one-half times as great as in 1914.

Table 85.—Census Statistics of the Canning and Preserving Industry

[Values in thousands of dollars]

Year	Total industry					Value of products			
	Number of establishments	Wage earners (average number)[1]	Cost of materials	Value of products	Value added by manufacture	Fruits and vegetables	Pickles, jellies, preserves, and sauces	Fish, crabs, and shrimps	Oysters and clams
1889	1,328	61,812	30,794	49,886	19,092	29,862	9,791	6,972	3,261
1899	2,570	57,012	63,668	99,335	35,667	56,427	23,477	18,178	1,253
1909	3,767	59,968	101,823	157,101	55,278	91,439	37,334	25,514	2,814
1914	4,220	74,071	159,658	243,440	83,782	149,176	60,915	31,111	2,238
1919	4,280	89,923	412,660	628,288	215,628	402,243	145,785	77,284	2,976
1921 [2]	2,225	59,675	259,704	401,831	142,127	248,106	117,611	33,957	2,158
1923 [2]	2,799	81,678	330,021	565,905	235,884	370,398	144,918	47,625	2,964
1925 [2]	2,722	96,396	424,767	677,131	252,364	616,071	([3])	61,061	([4])

[1] Obtained by adding monthly figures and dividing by 12; as the industry is highly seasonal the number employed at certain times is far greater.

[2] Excludes data for establishments reporting products under $5,000 value.

[3] Included in "Fruits and vegetables."

[4] Included in "Fish, crabs, and shrimps."

Source: Bureau of the Census.

Table 86.—Production of Canned Vegetables and Canned and Dried Fruits

NOTE.—Quantity of canned vegetables and soups and canned fruits in cases, and dried fruits in pounds.

Item	Number in case and standard size of can	Quantity (thousands)					Value (thousands of dollars)				
		1914	1919	1921	1923	1925	1914	1919	1921	1923	1925
Canned vegetables and soups		**55,145**	**63,953**	**45,048**	**89,937**	**104,531**	**92,291**	**176,431**	**118,188**	**214,715**	**282,891**
Beans	24 No. 2	8,994	14,824	11,316	20,468	24,441	16,565	39,409	30,712	39,638	55,165
Corn	do	9,920	14,403	9,011	14,704	22,837	13,923	35,532	19,550	30,833	51,346
Peas	do	8,826	9,326	8,222	14,434	16,796	15,089	25,073	22,953	39,768	42,887
Tomatoes	24 No. 3	16,200	11,836	4,134	14,781	15,303	25,532	38,068	12,509	39,677	42,680
Asparagus	24 No. 2½	638	1,007	740	1,462	1,476	2,791	6,572	5,137	10,955	10,487
Canned soup	48 No. 1	4,886	5,845	6,862	14,186	[1] 9,950	7,877	11,858	13,584	27,135	[1] 37,464
Other	24 No. 3	5,681	6,712	4,761	9,902	13,728	10,514	19,919	13,743	26,709	42,962
Canned fruits		**9,449**	**21,432**	**12,516**	**20,329**	**25,376**	**24,897**	**127,949**	**56,568**	**80,224**	**102,638**
Peaches	24 No. 2½	3,408	7,707	5,417	7,039	9,899	9,586	46,516	23,865	26,262	38,562
Apples	24 No. 3	1,515	2,448	2,239	2,726	2,604	2,392	9,082	7,748	6,540	6,951
Pears	24 No. 2½	1,063	2,022	1,165	1,818	3,593	3,854	14,203	7,539	9,390	20,898
Apricots	do	1,052	3,940	1,057	1,562	1,941	3,061	25,168	4,314	5,464	7,668
Other	24 No. 2	2,411	5,315	2,638	7,184	7,339	6,004	32,980	13,102	32,568	10,522
Dried fruits		**568,587**	**615,409**	**504,904**	**791,801**	**1,054,128**	**34,772**	**85,401**	**71,173**	**74,385**	**72,119**
Raisins		226,044	293,301	275,282	380,068	533,722	13,939	35,544	47,562	36,207	28,788
Prunes [2]		([2])	([2])	([2])	245,786	397,583	([2])	([2])	([2])	22,352	28,971
Peaches		61,907	73,379	35,407	61,616	36,857	2,916	12,110	4,166	6,469	3,555
Apples		54,957	46,623	22,975	19,398	21,121	2,889	6,772	2,800	1,693	2,227
Apricots [2]		([2])	([2])	([2])	54,029	33,039	([2])	([2])	([2])	5,192	5,434
Other		225,679	202,105	171,240	30,903	31,806	15,028	30,975	16,645	2,472	3,144

[1] Excludes clam chowder, included in earlier years.

[2] Not comparable with figures for 1923 on account of enlargement of scope of canvass; included in "other."

Source: Bureau of the Census.

Canned Fruits and Vegetables.

Figures collected by the National Canners Association which appear in Table 87 show the canning output for three staple vegetables. Production of canned peas and canned tomatoes reached a peak in 1925, while the corn pack of 1924 was the largest on record. On account of climatic conditions, the tomato pack for 1926 was comparatively small, but packs of peas and corn were very large. Spinach, asparagus, and other vegetables are being canned in increasing quantities. The increase in production of canned vegetables has been more rapid than that of consumption, causing an accumulation of stocks.

Table 87.—Output of Canned Corn, Peas, and Tomatoes

[In thousands of cases of 24 cans; corn and peas, No. 2 cans; tomatoes, No. 3 cans]

Year	Corn	Peas	Tomatoes	Year	Corn	Peas	Tomatoes
1909	5,787	5,028	10,984	1918	11,722	10,898	15,882
1910	10,063	4,347	9,235	1919	13,550	8,685	10,810
1911	14,337	4,532	9,749	1920	15,040	12,317	11,368
1912	13,109	7,307	14,022	1921	8,843	8,207	4,017
1913	7,283	8,770	14,206	1922	11,419	13,042	11,538
1914	9,789	9,347	15,222	1923	14,106	13,948	14,672
1915	10,124	9,272	8,469	1924	12,131	19,315	12,519
1916	9,130	6,686	13,142	1925	24,320	17,816	19,770
1917	10,803	9,829	15,076	1926	19,069	17,709	9,455

Source: National Canners' Association.

The State of California is by far the most important producer of both canned and dried fruits and is a very considerable factor in the production of certain canned vegetables. Figures collected by the Canners League of California (Table 88) show that the 1926 production of fruits and vegetables in that State was far ahead of that of any preceding year, showing an increase of 26 per cent over 1925. On account of the fact that these statistics are sums of the cases of the various sizes of cans packed, they are not strictly comparable with either the figures of the National Canners Association or of the Bureau of the Census, both of which are reduced to standard size cases. Practically all of the increase in the California production is accounted for by the unusually large peach and apricot packs. There was also an increase in the California pack of tomatoes which was larger than in any other year except 1919. This should have been an exceedingly profitable venture, since the eastern pack was greatly curtailed, but prices were adversely affected by the large carry over from the preceding crop.

Reports from the Pacific Northwest for the past year indicate no important increases in the berry pack. One of the limiting factors is the absence of sufficient labor for the harvesting of the crop. The fruit and vegetable crops in general have been good and production in the canned and dried forms was satisfactory.

Table 88.—California Packs of Fruits and Vegetables

[In thousands of cases—all grades and sizes]

Product	1911–1915, average	1919	1920	1921	1922	1923	1924	1925	1926
Total fruits and vegetables	**8, 393**	**20, 748**	**16, 632**	**11, 128**	**22, 391**	**19, 152**	**17, 502**	**24, 160**	**30, 522**
Fruits	**5, 560**	**13, 696**	**11, 383**	**8, 512**	**15, 478**	**11, 352**	**10, 363**	**15, 632**	**20, 975**
Peaches	2, 977	7, 059	6, 753	5, 796	9, 160	7, 464	6, 330	10, 457	14, 472
Apricots	1, 066	4, 395	2, 312	1, 151	3, 570	1, 562	2, 050	2, 197	3, 390
Pears	767	1, 072	1, 134	872	1, 713	1, 182	1, 445	2, 316	2, 044
Other	750	1, 170	1, 128	693	1, 035	1, 144	538	662	1, 069
Vegetables	**2, 833**	**7, 052**	**5, 250**	**2, 616**	**6, 913**	**8, 801**	**7, 139**	**8, 528**	**9, 547**
Tomatoes	1, 665	3, 810	1, 859	357	1, 925	2, 925	2, 155	2, 259	3, 191
Tomato products		886	833	495	1, 499	1, 283	1, 292	1, 790	2, 126
Asparagus	745	1, 031	1, 025	887	1, 240	1, 520	1, 793	1, 745	2, 236
Spinach		477	685	434	1, 181	1, 384	1, 073	1, 806	1, 339
Other	423	848	848	443	1, 068	1, 689	826	928	655

Source: Canners League of California.

On account of a very extended drought in the early summer in the Hawaiian Islands, the 1926 pineapple pack did not reach the proportions originally estimated, but was about the same size as in 1925. Conditions in Hawaii for the production of pineapples are beyond question better than those in any other section of the world, and this has resulted in the growth of the pineapple pack from a little over 2,500,000 cases in 1914 to 8,800,000 cases in 1926. The other regions of the world where pineapples are grown and canned only produce approximately one-eighth as much as Hawaii.

Prices of Canned Goods.

The very large packs of staple canned vegetables in recent years has had a very unfortunate effect on prices during the past year. As most, if not all of the canned vegetables, are mutually competitive, low prices on a few items tend to lower the prices on all of the others. Importations of Italian canned tomatoes have also had an effect on the market.

In the case of canned fruits the disorganization of the English market as a result of the prolonged coal strike has affected prices. In order to move stocks on hand domestic prices have been considerably reduced.

Dried Fruits.

Conditions in the dried-fruit trade have been more satisfactory. This can be largely accounted for by lower foreign purchasing power which has resulted in a marked tendency to turn from the more expensive canned fruits to the cheaper dried product. The prosperity of the dried-fruit trade is very closely connected with the export business, as a far larger proportion of the dried fruit produced is exported than occurs in the case of canned fruit. The distribution of many kinds of dried fruit is concentrated in comparatively few hands, and there is a marked effort to correlate selling prices with market demands and in that way to assure the movement of the products.

FOREIGN TRADE

Exports of canned vegetables and dried and evaporated fruits were greater both in quantity and value in 1926 than in 1925, but exports of canned fruits were about 15 per cent smaller in quantity and value. Exports of canned vegetables and raisins were larger than in other recent years.

Table 89.—Quantity and Value of Exports of Canned Vegetables and Fruits and Dried Fruits

Article	Quantity (thousands of pounds)					Value (thousands of dollars)					
	1922	1923	1924	1925	1926	1910–1914[1]	1922	1923	1924	1925	1926
Total	492,452	400,462	686,084	662,103	670,883	20,463	55,947	40,888	60,400	63,691	62,250
Canned vegetables	44,644	47,523	49,985	55,361	71,347	1,401	4,368	5,175	5,620	5,918	6,749
Pickles and sauces	9,614	12,709	10,821	10,118	10,346	[2] 883	1,500	1,762	1,586	1,683	1,745
Canned fruits	205,154	147,576	224,313	263,360	223,749	3,964	22,324	15,076	22,653	26,829	22,684
Preserved fruits, jellies, and jams	2,475	1,997	2,015	1,556	1,884	185	486	430	377	333	396
Dried and evaporated fruits	230,565	190,657	398,950	331,708	363,557	14,030	27,269	18,445	30,164	28,928	30,676
Raisins	93,891	77,814	92,140	125,924	141,038	1,070	11,476	7,627	7,027	9,291	11,178
Apples	17,391	16,708	29,740	22,721	28,327	2,815	2,210	1,547	3,639	2,788	2,974
Apricots	9,858	20,169	30,456	20,161	15,955	2,128	2,373	2,383	3,845	3,512	3,334
Peaches	5,764	4,656	12,552	4,412	5,335	394	755	432	987	508	775
Prunes	94,216	59,104	220,912	146,485	158,076	4,715	9,212	5,211	13,218	11,266	10,635
Other	9,444	12,206	13,150	12,006	14,826	2,908	1,243	1,244	1,448	1,563	1,780

[1] 1910–1914, years ending June 30; other years, calendar.
[2] Two-year average, 1913 and 1914.

Source: Bureau of Foreign and Domestic Commerce.

Table 90.—Exports of Canned and Dried Fruits, by Principal Countries of Destination

[Quantity in thousands of pounds, value in thousands of dollars]

Article and country	Quantity		Value	
	1925	1926	1925	1926
Canned fruits:				
France	7,198	5,775	741	580
Germany	6,415	6,224	705	614
United Kingdom	207,459	166,540	20,657	16,547
Canada	10,098	13,099	1,057	1,375
Cuba	6,431	3,801	763	438
Raisins:				
Denmark	3,380	1,502	281	134
Germany	14,672	15,888	1,013	1,381
Netherlands	12,206	14,171	837	1,124
United Kingdom	43,636	44,923	3,291	3,595
Canada	30,573	36,808	2,042	2,612
Mexico	2,010	1,655	191	164
China	3,385	4,428	278	338
Japan	2,458	2,972	202	243
New Zealand	4,967	5,513	379	446
Dried apricots:				
Germany	4,788	3,964	844	834
Netherlands	4,160	2,770	723	580
United Kingdom	3,264	1,677	589	367
Canada	1,372	1,097	184	172
Prunes:				
Belgium	4,524	5,649	396	408
Denmark	4,192	6,826	328	434
France	38,409	22,915	2,810	1,494
Germany	20,638	28,888	1,242	1,545
Netherlands	9,168	7,575	616	480
Sweden	4,648	5,994	446	486
United Kingdom	33,648	41,471	3,031	3,121
Canada	16,553	20,274	1,201	1,294

Source: Bureau of Foreign and Domestic Commerce.

The foreign distribution of the most important of the canned and dried fruits and vegetables is shown in Table 90. For all products except dried apricots, the United Kingdom is the most important market. For dried fruits, the most important markets outside of the United Kingdom are in continental Europe, particularly the central and northern sections. Germany and France are important purchasers of canned products, with Canada and Cuba also taking very large quantities. Considerable differences appear in the grade of dried fruits shipped to different countries, as indicated by the differences in the relations of quantity to value of exports.

FISHERIES AND FISH CANNING

Production.

There are no complete statistics of quantity or value of the products of American fisheries covering any one year since 1908. Data recently collected by the Bureau of Fisheries from the several sections of the country (covering different years for different sections) show an annual catch of somewhat more than 2,878,000,000 pounds, with a value, not including that added by canning or other manufacturing processes, of more than $97,500,000. These figures include shellfish.

Table 91.—Value of Canned Fishery Products and By-Products of the United States and Alaska

[Values in thousands of dollars]

Product	1921	1922	1923	1924	1925	1926
Total value	**54, 987**	**71, 842**	**85, 151**	**82, 458**	**95, 177**	**98, 326**
Salmon	28, 867	38, 421	45, 534	42, 402	47, 370	56, 216
California sardines	2, 346	3, 361	4, 608	5, 446	6, 381	7, 807
Maine sardines	3, 961	5, 750	5, 289	7, 191	6, 717	6, 727
Tuna and tuna-like fishes	3, 086	4, 373	6, 915	5, 757	8, 499	5, 282
Shrimp and crabs	3, 921	3, 168	4, 429	4, 645	3, 835	4, 147
Clams	1, 167	1, 716	1, 711	2, 161	1, 850	2, 005
Oysters	2, 179	2, 424	2, 720	2, 478	3, 721	2, 027
Miscellaneous canned products	1, 039	1, 180	1, 119	2, 085	2, 204	1, 978
Menhaden-meal scrap and oil	4, 006	6, 127	6, 411	3, 310	5, 623	3, 442
Miscellaneous by-products	4, 415	5, 322	6, 415	6, 983	8, 978	8, 691

Source: Bureau of Fisheries, Department of Commerce.

Table 92.—Fish Landed at Boston and Gloucester, Mass., and Portland, Me.

[Quantity in thousands of pounds; value in thousands of dollars

Kind, quantity, and value	1915–1920, average	1921	1922	1923	1924	1925	1926
All species:							
Quantity [1]	185, 458	150, 865	159, 875	174, 941	182, 948	216, 869	238, 426
Value	7, 881	5, 723	5, 466	7, 051	6, 993	8, 116	9, 058
Cod:							
Quantity	60, 193	53, 515	55, 180	62, 655	61, 449	67, 250	78, 219
Value	2, 496	1, 731	1, 635	2, 184	2, 138	2, 321	2, 647
Haddock:							
Quantity	67, 233	67, 413	70, 196	73, 762	79, 902	91, 886	94, 061
Value	2, 512	2, 046	1, 809	2, 423	2, 309	2, 748	3, 083
Halibut:							
Quantity	2, 664	5, 666	5, 624	4, 875	4, 422	3, 561	3, 431
Value	395	803	784	923	790	655	671
Mackerel:							
Quantity	10, 305	3, 384	4, 727	11, 565	9, 758	26, 210	36, 233
Value	913	336	276	488	542	1, 191	1, 406

[1] Includes minor species not shown separately.

Source: Bureau of Fisheries, Department of Commerce.

The most important centers of the fisheries industry are the North Atlantic coast, the Pacific coast, and Alaska, though large quantities are caught along all of our coasts and in all of our lakes and rivers. Reports of fisheries in leading districts and of the fish canning industry show exceptionally large volume in 1926. The total value of canned fish products and by-products in the United States proper and Alaska was more than $98,000,000 as compared with $95,000,000 the year before. (Table 91.) There was a marked increase in the aggregate output of canned salmon (Tables 93 and 94), resulting from a considerable increase in the production of red and pink salmon in Alaska, while the value was the greatest since 1919. The present large pack of salmon reflects at least in part the results of conservation measures now in force in Alaskan waters. Of particular interest to the American trade is the increasing production of Japan and Siberia. This is owing to more intensive fishing which, up to the present time, is not believed to have been accompanied by any attempt at conservation.

There was a marked increase in the canning of California sardines but a slight decrease in the pack of Maine sardines, and a substantial decrease in the pack of tuna and oysters.

The quantity of fish landed at Boston, Gloucester, and Portland (Me.), taken together, was one-tenth greater than the year before, and the value showed almost as great an increase. (Table 92.)

Table 93.—Production of Canned Salmon

[Thousands of cases]

Year	Total North American Pacific coast	Puget Sound	Columbia River	Alaska	Other United States Pacific coast	British Columbia	Total, including Japan and Siberia
1910	4,316	568	391	2,413	183	761	4,326
1916	7,356	707	548	4,920	186	995	7,829
1917	10,136	1,922	555	5,922	159	1,577	10,703
1918	9,692	624	591	6,678	183	1,616	10,100
1919	8,024	1,296	580	4,592	162	1,393	8,841
1920	6,323	167	482	4,429	58	1,188	6,944
1921	4,226	653	323	2,605	41	604	4,939
1922	6,522	249	392	4,501	89	1,290	7,240
1923	7,753	758	481	5,063	109	1,342	8,457
1924	7,991	318	501	5,306	121	1,745	8,800
1925	7,732	912	540	4,451	131	1,697	8,408
1926	9,557	310	480	6,633	68	2,065	10,529

Source: Yearbook "Pacific Fisherman."

Table 94.—Canned Salmon: United States and Alaska

Item	Production (thousands of 48-pound cases)			
	1923	1924	1925	1926
Total	**6,403**	**6,254**	**6,019**	**7,489**
Alaska	5,036	5,295	4,460	6,653
Washington	976	542	1,133	490
Oregon and California	392	417	426	346
Coho or silver	410	415	469	431
Chum or keta	680	1,276	1,212	1,051
Humpback or pink	2,893	2,614	2,662	3,341
Red or sockeye	1,965	1,534	1,178	2,233
All other	455	415	498	433

Item	Value (thousands of dollars)			
	1923	1924	1925	1926
Total	**45,534**	**42,402**	**47,370**	**56,219**
Alaska	32,873	33,007	31,990	46,080
Washington	7,533	5,062	10,080	5,428
Oregon and California	5,127	4,332	5,300	4,711
	Average price of Alaska salmon, per case			
Chum or keta	$4.65	$4.68	$4.44	$5.01
Humpback or pink	4.86	4.93	5.28	5.39
Red or sockeye	9.24	9.53	13.12	9.89

Source: Bureau of Fisheries, Department of Commerce.

Prices.

Prices of the cheaper grades of canned salmon were strong in 1926, but those of the higher grades were much lower than last year although higher than in the previous few years. Thus the annual average prices of Alaskan salmon of the chum and pink varieties were from 2 per cent to 13 per cent higher than in 1925, but the red or sockeye was 25 per cent lower than in 1925. (Table 94.)

Foreign Trade.

The 1926 exports of canned sardines again exceeded those of canned salmon. There was an enormous decrease in the exports of sardines to Argentina, but striking increases in exports to British India, the Dutch East Indies, the United Kingdom, Chile, and Mexico resulted in an increase of the total exports amounting to 14 per cent in quantity and 16 per cent in value.

Exports of canned salmon in 1926 were slightly greater in quantity but were 5 per cent lower in value than in the previous year. The United Kingdom is by far our most important market for canned salmon, but our exports to that country have been curtailed in the last two years as a result of Japanese competition and the lowered purchasing power which resulted from the coal strike.

Table 95.—Exports of Fish

[Quantities in thousands of pounds; values in thousands of dollars]

Article	Quantity			Value		
	1924	1925	1926	1910–1914 [1]	1925	1926
Fresh, cured, pickled, and salted fish	34, 057	31, 667	26, 009	2, 688	5, 018	4, 061
Canned fish	120, 561	118, 086	126, 790	5, 829	14, 667	15, 013
Salmon	67, 013	53, 172	53, 511	5, 615	9, 061	8, 578
Sardines	51, 261	62, 713	71, 285	-------	5, 302	6, 126
Other	2, 287	2, 201	1, 993	214	304	308
Shell fish canned	9, 347	4, 051	3, 443	1, 043	938	691
Shell fish not canned		6, 795	6, 320		934	830
Other fish products	590	523	1, 494	150	110	139
Total value (in thousands of dollars)	20, 320	20, 733	19, 904	9, 710	20, 733	19, 904

Principal exporting countries	Quantity	
	1925	1926
CANNED SALMON		
Belgium	902	732
Netherlands	521	654
United Kingdom [2]	24, 978	25, 358
Canada	2, 581	1, 682
Mexico	2, 013	2, 085
Cuba	405	640
Philippine Islands	7, 534	8, 141
Australia	6, 966	6, 371
SARDINES		
United Kingdom	1, 957	3, 286
Mexico	2, 434	3, 196
British India	2, 851	6, 284
British Malaya	12, 316	13, 287
Dutch East Indies	5, 461	8, 505
Philippine Islands	12, 674	11, 938

[1] Fiscal years.
[2] Includes Ireland in 1924.
Source: Bureau of Foreign and Domestic Commerce.

FUEL AND POWER

GENERAL ASPECTS

The Expanding Use of Mechanical Power and Industrial Heat.

A major factor in the high and increasing per capita production of Amercian industry is the great and growing use of mechanical power and of heat for industrial processes. The extent to which mechanical power is used as an aid to production can be roughly judged by the statistics of the capacity of power equipment in factories, mines, and electric plants. A still broader view is obtained from statistics of the aggregate production of the sources of power, namely, the mineral fuels and water energy. A great part of this total output is devoted to the generation of mechanical power—the operation of prime movers, and a large part of the remainder to the generation of heat for industrial processes. The latter is, of course, just as real an aid to human strength as the former.

Table 1.—Capacity of Prime Movers in Factories, Mines, and Electric Plants

NOTE.—Data for factories and mines (except mines in 1902) relate to 1899, 1909, 1914, 1919, 1923, and 1925; those for electric plants (except estimate for 1925) relate to 1902, 1907, 1912, 1917, 1922.

[Thousands of horsepower]

Year	Total	Factories	Mines	Electric plants			Per cent in electric plants
				Central stations	Street railways	Total	
1899–1902	15, 427	9, 778	[1] 2, 625	1, 845	1, 359	3, 204	20. 8
1907–1909	27, 824	16, 803	4, 403	4, 098	2, 520	6, 618	23. 8
1912–1914	34, 301	18, 410	[2] 4, 700	7, 530	3, 661	11, 191	32. 6
1917–1919	42, 312	20, 063	5, 112	12, 937	4, 200	17, 137	40. 5
1922–23	49, 244	19, 728	[2] 5, 100	20, 296	4, 119	24, 416	49. 6
1925 [3]	73, 373	35, 773	[2] 5, 100	----------	----------	[2] 32, 500	44. 3
Increase 1899–1902 to 1922–23:							
Amount	33, 817	9, 950	2, 475	18, 451	2, 760	21, 212	----------
Per cent	219. 2	101. 8	94. 3	1, 000. 1	203. 1	662. 0	----------

[1] Relates to 1902; the figure of total power has been reduced slightly to exclude electric motors.
[2] Estimate.
[3] Partly estimated.

The total horsepower capacity of prime movers in manufacturing and mining establishments and electric plants in 1925 was approximately 73,373,000 horsepower. The corresponding figure a quarter century ago was about 15,400,000, the total having thus almost quintupled. (Table 1.) As compared with 1880 the increase has been at least fifteenfold.

The relation of the capacity of prime movers in factories, mines, and quarries, and on railways to the number of workers is shown in further detail in Table 2. In this table the figures given for manufacturing and mining establishments include the capacity of electric motors operated by current purchased from central electric power stations.

Table 2.—Relation of Power Equipment to Number of Workers

Wage-earners, employees, and horsepower, in thousands; tractive power of locomotives, in millions of pounds; ratios as indicated]

Year	Wage-earners	Horsepower of prime movers		Year	Employees	Tractive power of locomotives	
		Total	Per wage-earner (units)			Total	Per employee (pounds)
MANUFACTURING INDUSTRIES				RAILWAYS			
1879	2,733	3,411	1.2	Fiscal years:			
1899	4,713	[1] 10,000	2.1	1899	929	[3] 660	710
1909	6,615	18,675	2.8	1909	1,503	1,549	1,030
1914	7,036	22,437	3.2	1914	1,710	2,078	1,215
1919	9,096	29,505	3.2	Calendar years:			
1923	8,778	33,094	3.8	Class I—			
1925 [2]	8,384	35,735	4.3	1919	[4] 1,935	2,313	1,200
				1923	[4] 1,880	2,544	1,350
MINING AND QUARRYING				1925	[4] 1,767	2,587	1,460
1902	582	2,868	4.9				
1909	1,065	4,608	4.3				
1919	1,088	6,734	6.2				

[1] Approximate, excluding hand and neighborhood industries.
[2] Estimated.
[3] Number of locomotives, 36,703; estimated average capacity, 18,000 pounds.
[4] Including Class I switching and terminal companies; estimate for such companies included in 1919 figure.

In 1879 each wage-earner in American factories was, on the average, aided by 1.2 horsepower, in 1899 by 2.1, and in 1925 by 4.3 horsepower. The aggregate tractive power of locomotives at the present time is nearly four times as great as at the beginning of the century, while the number of railway employees (including, of course, many who are in no way directly concerned with the use of locomotives) has less than doubled. The more powerful locomotive requires no more men to operate it than the smaller one and usually the longer train hauled by the former likewise requires no more train men.

A convenient method of presenting the facts as to the total use of the sources of power and heat is to convert all these sources to a common unit, tons of coal. In Tables 3 and 4 the production or consumption of petroleum and natural gas and the production of water power are expressed in terms of coal equivalent by the use of conversion factors corresponding roughly to relative average heat value. Similarly the capacity of water wheels installed is expressed in terms of the approximate quantity of coal necessary to create the same amount of energy in steam engines of average efficiency.

Table 3.—Production of Mineral Fuels and Water Power, by Principal Continents and Countries, 1925

NOTE.—In computing coal equivalent 4.2 barrels of petroleum or 22,000 cubic feet of gas is taken as equal to 1 ton of coal. For water power different conversion factors are used at different periods corresponding roughly to the gradually decreasing quantity of coal required to produce a mechanical horsepower. For 1921 to 1925 it is assumed that 1 horsepower operates on the average 3,600 hours per year, and that it would require 5.4 tons of coal to generate this amount of power at 3 pounds of coal per horsepower-hour.

[In short tons]

Continent and country	Coal (millions of tons)	Coal equivalent of—(millions of tons)		Total coal equivalent		Petroleum (millions of barrels)	Developed water power (thousands of horsepower)
		Petroleum	Developed water power	Millions of tons	Per cent		
World total	1, 350	[1] 308	140	1, 798	100. 0	1, 068	25, 200
North America	595	[1] 263	66	924	51. 3	879	12, 200
United States	582	[1] 236	51	869	48. 3	764	9, 500
Europe	638	18	62	718	40. 0	76	11. 500
United Kingdom	274		1	275	15. 3		250
Germany	180		6	186	10. 4		1, 100
France	52		10	62	3. 5		1, 900
Asia	89	17	8	114	6. 4	71	1, 500
All other	33	10	(2)	41	2. 4	40	(2)

[1] Including United States production of 1,188,000,000,000 cubic feet of natural gas equivalent to 54,000,000 tons of coal.

[2] Data not available.

The production of the sources of power in the United States is practically the same as the consumption, the relatively small exports of coal and the rather large exports of petroleum and its products being substantially balanced by imports of crude petroleum. The total production of coal itself in 1926 was 663,000,000 short tons, and the coal equivalent of oil, gas, and water power was about 284,000,000 tons, making an aggregate of approximately 947,000,000 short tons. This total does not include firewood, the consumption of which is considerable in some parts of the country, with an aggregate probably equal to at least 50,000,000 tons of coal. The total for mineral fuels and water power was equivalent to about 8 tons for each person in the total population of the country. The consumption of fuel, in coal equivalent (1925), in the United Kingdom, which leads among European countries in the use of heat and power, was about 4½ tons per capita. Ordinarily the production in that country considerably exceeds the consumption on account of the large exportation of coal, but the coal strike in 1926 reduced net exports of coal to only about 1,000,000 tons. (Table 30.)

Table 3 further shows that the combined production of sources of power in this country is about one-half of the world total. In the case of coal our production is more than two-fifths, in the case of petroleum about seven-tenths, and in the case of water power almost one-half of the aggregate for the entire world.

There has been a very great expansion in the production and consumption of mineral fuels and water power in the United States and, on account of the increasing efficiency with which these are utilized, a still greater increase in the amount of power and heat generated. The combined output of mineral fuels and water power in terms of coal equivalent was approximately 1½ tons per capita of the total population in 1870, 3½ tons at the beginning of the present century, and between 7 and 8 tons during recent years. The comparison with 1870 somewhat exaggerates the increase in the use of fuels because the data do not include firewood which was employed relatively much more extensively a few decades ago than at present. The change with respect to the use of firewood since 1900 has not been very great.

Table 4.—Coal Equivalent of Production of Primary Sources of Power

[In short tons]

Annual average or year	Petroleum (millions of barrels)	Natural gas (billions of cubic feet)	Water power (thousands of horsepower capacity)	Coal equivalent (million tons)[1]					Per capita	
				Coal	Oil	Gas	Water power	Total	Coal (tons)	Total (tons)
1871–1875	8	--------	1, 130	52	2	--------	8	62	1. 24	1. 47
1876–1880	17	--------	1, 180	62	4	--------	7	73	1. 29	1. 52
1881–1885	26	--------	1, 225	107	6	--------	6	119	1. 98	2. 20
1886–1890	33	[2] 135	1, 250	138	8	6	6½	158½	2. 28	2. 62
1891–1895	51	[2] 100	1, 300	179	12	4½	6½	202	2. 67	3. 01
1896–1900	59	[2] 130	1, 700	227	14	6	9	256	3. 09	3. 48
1901–1905	102	[2] 260	2, 100	339	24	12	13	388	4. 19	4. 79
1906–1910	173	437	3, 200	455	41	20	19	535	5. 11	6. 00
1911–1915	248	576	4, 800	529	59	26	26	640	5. 48	6. 63
1916–1920	363	763	6, 700	626	86	35	38	785	6. 04	7. 58
1921–1925	649	952	8, 000	559	155	43	43	800	5. 01	7. 16
1925	764	1, 188	[3] 9, 500	582	182	54	51	869	5. 04	7. 53
1926	[4] 767	[3] 1, 200	--------	[4] 663	183	55	--------	--------	5. 67	--------

[1] See headnote, Table 3.
[2] Estimated from the values reported.
[3] Estimated.
[4] Preliminary.

The Increasing Efficiency of Fuel Consumption.

Since the introduction of the steam engine repeated improvements have served to increase the amount of energy derived from a given quantity of fuel. The increase in the size of boilers and of engines, the substitution for many purposes of the turbine for the reciprocal engine, and the introduction of compound engines, devices for rapid and complete condensation of steam, mechanical stokers, and many other technical improvements have actually increased several fold the efficiency of steam generation within the past few decades.

A rough idea of the more recent advance in the efficiency with which the sources of power are utilized may be gained by comparing the increase in the consumption of mineral fuels with the increase in various indicators of power and heat production. In this comparison petroleum products used for domestic lighting and for operating automobiles are excluded because of the lack of any measure of the light or the automobile mileage obtained. On the average during the years immediately preceding the World War, the consumption of coal, petroleum (other than for the uses mentioned), and natural gas in the United States was equivalent to approximately 572,000,000 tons of coal, while for the period 1921 to 1925, the corresponding consumption was about 658,000,000 tons. The increase was thus 15 per cent. In the meantime population increased 16 per cent. It is certain that the amount of heat generated for domestic purposes did not decrease per capita. If anything it must have increased. Between the pre-war and the post-war periods the capacity of the prime movers operated by fuel in factories, mines, and electric plants had increased by more than 40 per cent, and it seems safe to assume that the amount of power generated by these prime movers had increased at least correspondingly. There had been an increase also of 30 per cent in the quantitative volume of railway transportation service.[1]

The many different products in the preparation of which great quantities of heat are required—such as pig iron, nonferrous metals, sugar, rubber, and the like—show various rates of increase; it is evident by comparing these that the average increase for all of them was not less than 15 per cent and very likely at least 25 per cent. A combined weighted average of the percentages above given shows an aggregate increase in output of power and heat between the pre-war and post-war periods of not less than 25 per cent, and very possibly as high as 30 per cent as compared with the increase of about 15 per cent in the amount of fuel utilized. A still more marked gain in efficiency would appear if the comparison were made between pre-war figures and those for the year 1926.[2]

Relative Importance of the Several Sources of Heat and Power.

The improvement in the efficiency of fuel consumption has tended to check the growth in demand for coal. Of still greater importance in the same direction is the increase in the use of other fuels and of water power. (Table 4.) Twenty-five or thirty years ago, of the combined production of mineral fuels and water power expressed in terms of coal equivalent, coal itself represented about 88 per cent, petroleum about 6 per cent, and natural gas and water power each about 3 per cent. At the present time coal represents only about two-thirds of the total, while the proportion contributed by petroleum has risen to more than 20 per cent and that of natural gas and water power to about 6 per cent each. The average production of coal for the five years 1921–1925 was about 219,000,000 tons greater than for the five years 1901–1905.

The coal equivalent of oil, gas, and water power during the later period was 192,000,000 tons greater than during the earlier period; in other words the increase in these was in absolute figures not much less than that in coal itself. While production of coal increased by 65 per cent, the combined production of these other sources of power increased by 390 per cent.

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[1] A calculation based on the weighted average of the gross ton-mileage in freight service and the car-mileage in passenger service.

[2] As to the increasing economy of fuel in central electric plants see Table 8; and for railways Table 10, Railway Transportation Section.

The increase in the production of oil, gas, and water power, however, has not been altogether at the expense of coal. Much of the heat and energy generated from these other sources would presumably never have been generated at all without their use. In particular it is quite possible that except for the great increase in production of petroleum the use of automobiles would have remained comparatively small. So too the development of oil fields and water power in the West has made possible the many power-using industries in that section which would not have existed otherwise. Nevertheless, oil, gas, and water power are in many fields direct competitors of coal.

ELECTRIC LIGHT AND POWER

SUMMARY.—During 1926 the public-utility companies, including electric railways, produced almost 74,000,000,000 kilowatt-hours of electric energy, more than four times the output in 1912. This was an increase of about 11½ per cent over 1925, which was the same annual rate of increase as in each of the two preceding years. (Table 5.) The capacity of equipment, however, from year to year since 1923, has shown a declining ratio of increase, being successively 20 per cent, 16 per cent, and 11 per cent. This indicates the increasingly efficient employment of equipment. Current produced by water power in 1926 showed a greater percentage increase for the year than did that produced by fuel power, but the increase in output from fuel power has almost doubled since 1919, whereas the increase in the output from water power is about three-fourths greater. Since 1919 there has been a marked increase in efficiency in the use of fuel, almost 66 per cent more current being derived from a given quantity of fuel than at the close of the war. Average retail lighting rates continued to decrease slightly, as in previous years.

Table 5.—Growth of Electric Equipment and Output

Year	Current generated by public plants			Capacity of equipment					
				Generators		Motors run by current generated by establishment		Motors using purchased power	
	Total	Central stations	Electric railways	Central stations	Electric railways	Factories	Mines	Factories	Mines
	Millions of kilowatt-hours	*Millions of kilowatt-hours*	*Millions of kilowatt-hours*	*Thousands of kilowatts*	*Thousands of kilowatts*	*Thousands of horsepower*	*Thousands of horsepower*	*Thousands of horsepower*	*Thousands of horsepower*
1902	[1] 4,768	2,507	2,261	1,212	[2] 900				
1904						1,151		442	
1907	[1] 10,621	5,862	4,759	2,709	1,723				
1909						3,068	494	1,749	206
1912	[1] 17,572	11,569	6,003	5,165	2,505				
1914						4,939		3,885	
1917	[1] 32,679	25,438	7,241	8,994	2,925				
1919						6,969	1,259	9,284	1,603
1922	[1] 46,764	40,291	6,473	14,313	2,973				
	[3] 47,659			15,397					
1923	[3] 55,674			16,149		8,821		13,365	
1924	[3] 59,014			19,400					
1925	[3] 65,870			22,524					
1926	[3] 73,791			25,257					

[1] Total as reported by the Bureau of the Census for central stations and electric railways.
[2] Estimated.
[3] Total as reported by the Geological Survey.

Sources: Geological Survey, Department of the Interior, and Bureau of the Census.

GENERAL POSITION OF THE INDUSTRY

The growth of the electric light and power industry in the United States has been one of the most remarkable developments of recent years. The capacity of the earlier forms of generating units was less than 100 kilowatts, but to-day a maximum capacity of 150,000 kilowatts has been realized. In the past 25 years the aggregate capacity of generators in central electric stations and electric railways has increased almost 20 times, while the actual output of such stations was almost 15 times greater in 1926 than in 1902. The greater increase in the capacity of equipment as compared with output indicates that with machinery held in reserve for emergencies there is ample provision for securing uninterrupted service. Production of electric current in 1926 amounted to about 630 kilowatt-hours per inhabitant as compared with 550 kilowatt-hours in 1925. Table 5 shows for the past quarter of a century the increase in output and the growth of electrical equipment not only in central stations but in factories and mines as well.

Table 6.—Electrical Development in Principal Countries

Country	Output of electric current[1]		Number of consumers, thousands, 1926	
	Total, million kilowatt-hours	Per capita, kilowatt-hours	Domestic lighting	Power and commercial lighting
World total, estimate	**160,000**	**93**	**45,000**	----------
North America:				
United States	73,791	629	15,923	3,606
Canada	10,480	1,193	1,200	36
Mexico	561	36	350	100
South America:				
Argentina	----------	----------	450	130
Europe:				
Belgium	3,214	431	492	----------
Czechoslovakia	----------	----------	1,000	300
Denmark	223	68	620	80
France	9,700	247	2,000	----------
Germany	11,521	192	3,000	----------
Italy	7,600	195	1,500	----------
Netherlands	896	130	400	----------
Norway	4,200	1,596	300	----------
Poland	1,300	47	400	----------
Spain	----------	----------	1,000	----------
Sweden	3,500	593	500	11
Switzerland	4,190	1,079	400	----------
United Kingdom	8,320	188	1,500	250
Asia:				
Japan	6,400	107	8,140	189
Oceania:				
Australia	----------	----------	453	----------

[1] Figures are for 1925, except for the United States which are for 1926.

Sources: British Electrical and Allied Manufacturers Association and Bureau of Foreign and Domestic Commerce.

The United States has about one-half of the total world capacity of public utility electric plants. In only three other countries, Norway, Canada, and Switzerland, is the output per capita greater than in the United States, but much of the Swiss current is exported or used by heavy traction electrifications, while in the other two countries the paper-making and electrochemical industries consume large quantities. The United States is far ahead of any other country in the general household use of electricity. In Japan, which shows the next largest number of domestic consumers, the situation is quite different from that in Europe and America, for in the Far East a consumer may be represented by the installation of a single light.

Water-Power Resources.

In almost all countries the greater part of the developed water power is utilized for the generation of electric current. Of the countries for which accurate data are available, the United States has the greatest water-power resources, both potential and developed. Canada ranks second in water-power resources and also in the extent of their development. Norway has great potential water power but the development there is considerably less than in Italy where the resources are only half as great.

Table 7.—Water-Power Estimates as of January 1, 1924

Country	Total resources, horsepower	Amount developed, horsepower
Germany	2, 000, 000	1, 100, 000
Italy	6, 000, 000	2, 100, 000
France	5, 400, 000	1, 900, 000
Canada	18, 250, 000	3, 227, 000
United Kingdom	500, 000	250, 000
United States	34, 000, 000	7, 000, 000
India	7, 500, 00	360, 000
Switzerland	8, 000, 000	1, 490, 000
Norway	12, 290, 000	1, 400, 000

Note.—The basis of estimates of potential water power is subject to considerable variation as between countries, but in general it may be assumed that the values assigned are those regarded as commercially feasible in the particular country. The data have been compiled by the electrical equipment division from figures given at the World Power Conference, from information issued by the United States Geological Survey, and from reports of American Government representatives abroad.

Production of Electric Current and Fuel Consumption.

The production of 73,791,000,000 kilowatt-hours of electric current by public-utility companies in 1926 registered another great stride in the steady progress of the electrical industry. This output was 88.6 per cent above that of 1919, and exceeded that of 1925 by 11.4 per cent. (Table 8.) There was a slight upward trend between 1925 and 1926 in the proportion of current produced by water power, 35.5 per cent being so produced as compared with 33.9 per cent in the previous year. The increase of output of hydroelectric plants was 16 per cent greater than in 1925, whereas the production of fuel-burning plants was only 9.1 per cent greater. As compared with 1919, however, the output of fuel-burning plants was almost doubled in 1926, while the current generated by water power was only 77.6 per cent greater.

Table 8.—Public Utility Electric Plants: Output and Fuel Consumption

Year	Output (millions of kilowatt-hours)			Consumption of fuel (coal or coal equivalent)	
	Total	Water power	Fuel power	Amount (thousands of tons)	Pounds per kilowatt-hour
1919	38, 921	14, 606	24, 315	38, 880	3. 2
1920	43, 555	16, 150	27, 405	41, 420	3. 0
1921	40, 976	14, 971	26, 005	35, 240	2. 7
1922	47, 659	17, 206	30, 453	38, 000	2. 5
1923	55, 674	19, 348	36, 327	43, 522	2. 4
1924	59, 014	19, 969	39, 044	43, 130	2. 2
1925	65, 870	22, 356	43, 514	44, 780	2. 1
1926	73, 791	26, 189	47, 602	45, 856	1. 95
Per cent increase, 1926 over:					
1919	88. 6	77. 6	95. 2	17. 6	−39. 7
1925	11. 4	16. 0	9. 1	2. 1	−6. 3

Source: Geological Survey, Department of the Interior.

As a result of the introduction of more efficient methods of fuel utilization, from year to year there has been a constant reduction in the quantity of fuel consumed per unit of electric current produced. Considering all fuels except wood,[3] reduced to the common basis of coal equivalent, there has been a reduction of 39.7 per cent since 1919 in the amount of fuel required to produce a unit of electric current, and in 1926, as compared with 1925, there was a reduction of 6.3 per cent. From the point of view of production this means that in 1926 from a given amount of fuel 66 per cent more current was produced than in 1919, and almost 7 per cent more than in 1925.

Coal is the principal fuel used in producing electric power, while fuel oil ranks next in importance. The use of gas for the generation of electric current, though considerable in certain States where natural gas is abundant, is not a very important factor in the total for the entire country. In 1926 approximately 41,300,000 short tons of coal, 9,400,000 barrels of fuel oil, and 53,000,000,000 cubic feet of gas were consumed in the generation of electric current, increases, as compared with 1925, of 3 per cent and 14 per cent in the quantity of coal and gas, respectively, and a decrease of 7 per cent in that of fuel oil.

Use of Fuel Power and Water Power.

The relative importance of the various types of prime movers installed in public-utility electric plants, including electric railways, for each census year since 1902, is shown in Table 9. About one-fourth of the total horsepower of prime movers in these plants in 1922 was operated by water power and three-fourths by fuel power. Twenty years earlier the hydroelectric equipment represented only

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[3] In 1926, 328,409,000 kilowatt-hours of electric current was produced by the use of wood in the United States.

15 per cent of the total, while in 1917 it was almost 29 per cent. Although the United States still has enormous undeveloped water-power resources (Table 7) these are limited to certain geographic regions and the initial expense of harnessing this power is so great that the use of fuel will probably continue to be the chief source of power production.

In 1919 the production of electric current by water power was 37.5 per cent of the total output. The ratio was slightly lower in 1922 and still lower in 1926, 35.3 per cent. From year to year it appears that although the water-power equipment represents on an average only about one-fourth of the total, the output from water power is somewhat greater than one-third of the total.

Table 9.—Use of Fuel Power and Water Power in Public Utility Electric Plants

Year	Horsepower of prime movers (thousands)				Per cent of total		
	Total	Water wheels and turbines	All steam and gas engines	Steam turbines	Water wheels and turbines	All steam and gas engines	Steam turbines
1902	3, 177	489	2, 688	(1)	15. 4	84. 6	----------
1907	6, 618	1, 441	5, 177	1, 352	21. 8	78. 2	20. 4
1912	11, 191	2, 940	8, 251	4, 517	26. 3	73. 7	40. 4
1917	17, 137	4, 905	12, 231	9, 070	28. 6	71. 4	52. 9
1922	24, 415	6, 226	18, 189	15, 211	25. 5	74. 5	62. 3

(1) No data.

Source: Bureau of the Census.

Growth of Central Electric Stations.

The value of plant and equipment of central electric stations in 1926 was $7,325,000,000 as compared with $2,176,000,000 in 1913, or more than three and one-third times as great. The increase in the gross revenue of these companies during the same period was more than 450 per cent, whereas average retail lighting rates declined 15 per cent.

Domestic and Industrial Use of Electric Current.

From the beginning of 1913 to the end of 1926 the number of customers for electric light and power increased 279 per cent. In 1913 only 18 per cent of the population lived in electric-lighted dwellings but more than three times as many had electric lights in 1926. Of the total number of consumers, year in and year out, about 81 per cent use the current for domestic lighting, and the other 19 per cent for commercial lighting and industrial power. This ratio, however, is not indicative of the quantity of power consumed for these purposes, respectively, for according to the census of 1922 about one-third of the current sold was for domestic lighting purposes (including domestic power and heating) and two-thirds for industrial and general power purposes.

Table 10.—Operations of Central Electric Stations

Item	1913	1919	1922	1924	1925	1926
Value of plant and equipment, end of year ---- millions of dollars	[1] 2,176	3,712	4,465	5,762	6,483	7,325
Gross revenue ---- do	302	774	1,072	1,355	1,507	1,684
Average retail lighting rates ---- cents per kilowatt-hour	8.7	7.8	7.8	7.6	7.5	7.4
Number of customers, end of year	[1] 5,158	9,899	12,334	16,567	18,069	19,529
Domestic light ---- thousands	[1] 4,170	8,010	9,925	13,407	14,701	15,923
Commercial light ---- do	[1] 810	1,550	1,954	2,589	2,736	2,921
Industrial power ---- do	[1] 178	339	455	571	632	685
Per cent of total population living in electric-lighted dwellings, end of year	[2] 18	33	39	51	54	58

[1] Year 1912. [2] Jan. 1, 1915.

Source: Electrical World.

Although more current is consumed in the home for lighting than for power and heat, electrical household appliances are being employed more and more from year to year. According to data collected by the McGraw-Hill Co., of the 15,923,060 wired homes in the United States in 1926, the percentages equipped with major electrical appliances were as shown in the following statement:

	Per cent		Per cent
Electric irons	80.0	Electric heaters	13.5
Vacuum cleaners	37.1	Electric cookers	4.7
Clothes washers	26.7	Electric ranges	3.0
Electric fans	26.1	Electric refrigerators	2.4
Electric toasters	25.1	Ironing machines	1.7

Table 11.—Output of Electric Current, by Geographic Divisions

Note.—The 1926 figures, from the Geological Survey, are on a slightly different basis from those for other years, but are quite closely comparable.

Geographic division	Output of current (millions of kilowatt hours)					Output per capita (kilowatt hours)		Number of consumers Jan. 1, 1927, (thousands)
	1907	1912	1917	1922	1926	1912 [1]	1926	
Continental United States	10,621	17,572	32,679	46,765	73,791	192	629	19,529
New England	1,015	1,542	2,642	3,598	5,166	235	638	1,682
Middle Atlantic	3,679	5,371	9,332	12,460	20,527	278	835	5,124
East North Central	2,343	3,995	7,532	10,781	17,664	219	730	4,915
West North Central	787	1,209	2,454	3,585	4,587	104	350	2,044
South Atlantic	644	1,074	2,588	4,826	7,197	88	459	1,315
East South Central	298	476	1,252	1,545	3,049	57	327	643
West South Central	258	425	788	1,494	2,640	48	230	1,079
Mountain	446	981	2,136	2,318	3,425	372	871	589
Pacific	1,150	2,498	3,954	6,158	9,537	596	1,417	2,138

[1] Computed on the basis of population in 1910.

Sources: Geological Survey, Department of the Interior, Bureau of the Census, Department of Commerce, and Electrical World.

The increase in the total output of electric current has been more than threefold since 1912, and the output per capita increased from 192 kilowatt-hours to 629 kilowatt-hours for the United States as a whole. All sections of the country shared in this increased development, but it was most marked in the sections of the South where up to 1912 less progress had been made. The South Atlantic division showed the greatest percentage increase in total output of current, while the East South Central States had the greatest percentage increase per capita.

Electrification of the Manufacturing Industry.

The increase in the electrification of the manufacturing industry in the United States in indicated by the figures in Table 12. According to the census of manufactures the horsepower of prime movers owned by factories in 1925 was 35,773,000 as compared with 18,406,000 in 1914. Moreover, the increase in the horsepower of electric motors operated by purchased current was 308 per cent, and of those operated by prime movers owned by factories 108 per cent. Assuming that the latter were operated at 72 per cent of capacity, the capacity of factory prime movers used to actuate them represented 7,380,000 horsepower in 1925. This figure added to that for motors operated by purchased current gives a total of 23,249,000 horsepower of electrified power, or 45 per cent of the total power equipment in 1925. This is 36 per cent greater than it was in 1914.

The latest available data on the use of electric power in mines and quarries are for the year 1919. At that time the horsepower of motors which operated on purchased current was 1,603,000 while motors with 1,259,000 horsepower were operated by current generated by the establishments themselves. Although it is scarcely probable that the increase in electrification in mines and quarries has kept pace with that in manufacturing establishments, there has undoubtedly been much progress in the same direction.

Table 12.—Capacity of Prime Movers and Electric Motors in Manufacturing Plants

Item	Horsepower (thousands)		
	1914	1923	1925
Prime movers owned by factories	18,406	19,728	35,773
Electric motors operated by purchased current	3,885	13,366	15,869
Total power equipment	22,291	33,094	51,642
Electric motors operated by prime movers owned by factories	4,939	8,821	10,255
Estimated capacity of factory prime movers used to actuate motors	3,550	6,350	7,380
Total power "electrified"	7,435	19,716	23,249
Per cent of "electrification"	33	60	45

Source: Basic figures from Bureau of the Census.

Rates.

The retail prices of electricity in 51 cities as reported by the Bureau of Labor Statistics, show that in most cases there has been no change in rates between the month of December of 1925 and 1926. In only four cities was there an average lowering of eight-tenths of a cent per kilowatt hour. In only one city was there an increase during this period and this amounted to only one-tenth of a cent per kilowatt hour. In the majority of cities, however, there has been a marked decline in rates as compared with December, 1913, which amounted on the average to about 15 per cent. (Table 10.)

Several cities have sliding scales based on a variable number of kilowatt hours payable at each rate which is determined for each customer according to the watts of installation in the individual home. The number of watts so determined is called the customer's "demand." Special allowance is also made for household appliances up to a certain limit, and lower rates are granted for power and heat units.

COAL

SUMMARY.—The bituminous coal industry, during 1926, received unusual stimulus from the anthracite strike in this country, the protracted coal strike in Great Britain, and the increase in industrial consumption. Output totaled 578,290,000 short tons which was an increase of 11 per cent over that of the preceding year, and greater than for any other year except 1918. Anthracite production was 85,000,000 short tons, 37 per cent greater than in 1925 when production was curtailed by the three months' strike. Beehive and by-product coke production amounted to 11,486,000 and 44,550,000 short tons, respectively, increases of 1 per cent and 12 per cent over the preceding year.

Commercial stocks of bituminous coal increased during 1926 by 6,000,000 tons to 55,000,000 tons at the end of the year.

The average spot price of bituminous coal f. o. b. the mines, $2.21 per short ton, was higher in 1926 than for either of the two preceding years. Prices showed a very wide range during the year, reflecting the condition of the market; they advanced during the first quarter under the influence of the anthracite strike, were at a low level in the spring and summer, and rose to a peak during the last quarter when the demand for coal for export was very large. The average wholesale price of anthracite at New York, $11.48 per long ton, was higher than ever before.

Exports of bituminous coal and anthracite were 35,272,000 and 4,030,000 short tons, respectively. As compared with 1925, the former more than doubled and there was an increase in the latter of 27 per cent. The great increase in bituminous coal exports in 1926 was caused primarily by the British coal strike; we exported 10,757,000 tons to the United Kingdom itself and more than doubled our shipments to Argentina, Brazil, Italy, France, and many other countries. Imports of bituminous coal and anthracite were 532,000 and 814,000 short tons, respectively, a decrease of 12 per cent as compared with 1925 for bituminous coal and an increase of more than 100 per cent for anthracite. Coke exports amounted to 987,000 short tons, an increase of only 3 per cent, while coke imports were 285,000 short tons, an increase of 41 per cent.

Table 13.—Coal and Coke Summary

NOTE.—All quantity figures are in thousands of short tons. Figures for 1926 are preliminary.

Item	1913	1921	1923	1924	1925	1926 [1]	Per cent change 1926 from 1925
World production	1, 479, 000	1, 250, 000	1, 498, 000	1, 496, 000	1, 500, 000	1, 494, 000	−0. 4
UNITED STATES							
Production:							
Bituminous	478, 435	415, 922	564, 565	483, 687	520, 053	578, 290	+11. 2
Anthracite	91, 525	90, 473	93, 339	87, 927	61, 817	85, 000	+37. 5
Exports:							
Bituminous [2]	20, 145	23, 131	21, 454	17, 100	17, 462	35, 272	+102. 0
Anthracite	4, 653	4, 677	5, 090	4, 018	3, 179	4, 030	+26. 8
Average weighted mine price of bituminous, per short ton	$1. 23	$2. 55	$2. 77	$2. 08	$1. 90	$2. 21	+16. 3
Price of anthracite egg at New York, per long ton	$5. 06	$10. 22	$10. 87	$11. 35	$11. 11	$11. 48	+3. 3
Coke production	46, 300	25, 288	56, 978	44, 270	51, 267	56, 036	+9. 3
Price of furnace coke, Connellsville	$2. 98	$4. 63	$6. 27	$4. 42	$4. 61	$4. 96	+7. 6

[1] Preliminary figures.
[2] Does not include fuel or bunker coal laden on vessels engaged in foreign trade.

PRODUCTION

Bituminous Coal.

The production of bituminous coal in 1926 established a new high record for a peace-time year and almost equaled the record total of the war year 1918. Preliminary figures show an output of 578,290,000 net tons in 1926, compared with a production of 579,386,000 net tons in 1918. A new monthly record was established with the November production of 59,721,000 tons. Bituminous production in 1926 was 11.2 per cent greater than in 1925 (Table 14), owing principally to the increase in exports which resulted from the protracted strike in the British coal fields, the six weeks of the anthracite strike in the early part of the year, and the increased industrial consumption. An increase in commercial stocks of coal during the year accounted for a small part of the increase in production.

Aside from the year 1926, the production of bituminous coal in recent years has shown much less increase in output than many other industries, the rate of increase also being less rapid than the industry showed during many decades preceding the war. This is owing primarily to greater efficiency in the utilization of coal for power production and to a smaller degree to the increase in water-power developments and in the use of oil.

No serious labor difficulties interfered with the production of bituminous coal in 1926, although seasonal and other fluctuations in demand resulted in a wide range in monthly production figures from 39,059,000 tons in May to 59,721,000 tons in November when the demand from foreign markets was at its height. (Table 15.)

The present state of development and efficiency of railway facilities has removed the menace of shortage of cars for peak-load coal movement which existed a few years ago, as is evidenced by the fact that the record coal traffic of October and November was handled by the railroads with only occasional local car shortage of a temporary nature, at the time when the demand for open top cars for other commodities was greater than for any other period.

Table 14.—Coal: Production and Value

NOTE.—Production and value include coal consumed at mines. Bituminous coal includes brown coal and small amounts of anthracite outside of Pennsylvania, the anthracite figures relating to the Pennsylvania product only.

Yearly average	Thousands of short tons			Year	Thousands of short tons			Thousands of dollars	
	Total	Anthracite	Bituminous		Total	Anthracite	Bituminous	Anthracite	Bituminous
1841-1845	3, 192	1, 719	1, 472	1910	501, 596	84, 485	417, 111	160, 275	469, 282
1846-1850	5, 879	3, 676	2, 203	1911	496, 371	90, 464	405, 907	175, 189	451, 376
1851-1855	10, 805	6, 714	4, 091	1912	534, 467	84, 362	450, 105	177, 623	517, 983
1856-1860	14, 221	8, 577	5, 644	1913	569, 960	91, 525	478, 435	195, 181	565, 235
1861-1865	20, 538	11, 142	9, 396	1914	513, 525	90, 822	422, 704	188, 181	493, 309
1866-1870	31, 706	16, 281	15, 425	1915	531, 619	88, 995	442, 624	184, 653	502, 038
1871-1875	52, 179	23, 407	28, 773	1916	590, 098	87, 578	502, 520	202, 010	665, 116
1876-1880	62, 261	25, 800	36, 461	1917	651, 402	99, 612	551, 791	283, 651	1, 249, 273
1881-1885	107, 291	36, 198	71, 093	1918	678, 212	98, 826	579, 386	336, 480	1, 491, 810
1886-1890	138, 398	43, 952	94, 446	1919	553, 952	88, 092	465, 860	364, 927	1, 160, 616
1891-1895	178, 822	53, 405	125, 416	1920	658, 265	89, 598	568, 667	434, 252	2, 129, 933
1896-1900	227, 123	55, 625	171, 498	1921	506, 395	90, 473	415, 922	452, 305	1, 199, 984
1901-1905	339, 357	66, 854	272, 503	1922	476, 951	54, 683	422, 268	273, 700	1, 274, 820
1906-1910	454, 555	81, 142	373, 413	1923	657, 904	93, 339	564, 565	506, 787	1, 514, 621
1911-1915	529, 189	89, 233	439, 955	1924	571, 613	87, 927	483, 687	477, 231	1, 062, 626
1916-1920	626, 386	92, 741	533, 645	1925	581, 870	61, 817	520, 053	327, 665	1, 060, 402
1921-1925	558, 947	77, 648	481, 299	1926 [1]	663, 290	85, 000	578, 290	450, 500	1, 272, 000

[1] Preliminary; subject to revision.

Source: Bureau of Mines, Department of Commerce.

Table 15.—Coal Production, by Months

[In thousands of short tons]

Year and month	Bituminous						
	1920	1921	1922	1923	1924	1925	1926 [1]
Year	**568, 667**	**415, 922**	**422, 268**	**564, 565**	**483, 687**	**520, 053**	**578, 290**
January	49, 748	41, 148	38, 930	51, 944	52, 507	51, 640	53, 662
February	41, 055	31, 524	42, 425	43, 645	47, 302	38, 770	46, 577
March	47, 850	31, 054	51, 936	48, 446	41, 288	37, 416	46, 137
April	38, 764	28, 154	16, 335	44, 057	30, 429	33, 514	40, 079
May	39, 841	34, 057	21, 005	47, 690	32, 276	35, 276	39, 059
June	46, 095	34, 635	23, 096	47, 083	31, 458	36, 960	41, 992
July	45, 988	31, 047	17, 602	46, 707	33, 346	39, 362	43, 472
August	49, 974	35, 291	26, 755	50, 578	35, 923	44, 633	46, 352
September	50, 241	35, 870	42, 463	47, 841	42, 376	46, 556	48, 976
October	53, 278	44, 687	46, 733	50, 907	48, 414	52, 907	54, 592
November	52, 576	36, 805	46, 900	44, 425	42, 102	50, 497	59, 721
December	53, 257	31, 650	48, 088	41, 242	46, 266	52, 522	57, 671
	Anthracite (Pennsylvania)						
Year	**89, 598**	**90, 473**	**54, 683**	**93, 339**	**87, 927**	**61, 817**	**85, 000**
January	7, 459	7, 681	6, 566	8, 521	7, 724	7, 234	[4] 173
February	6, 415	7, 983	7, 096	7, 602	7, 428	7, 003	[4] 2, 083
March	7, 935	7, 677	9, 181	9, 175	7, 908	6, 886	8, 790
April	6, 285	7, 985	[2] 27	7, 885	6, 639	7, 292	8, 217
May	8, 037	7, 752	[2] 36	8, 384	7, 549	7, 938	8, 054
June	8, 251	8, 071	[2] 86	8, 474	7, 509	7, 616	8, 937
July	8, 342	7, 309	[2] 118	8, 136	7, 584	8, 334	8, 427
August	8, 105	7, 459	[2] 164	8, 672	6, 906	9, 014	8, 226
September	4, 691	7, 385	[2] 5, 075	[3] 2, 853	7, 408	[4] 52	8, 444
October	8, 148	7, 858	8; 896	8, 532	7, 479	[4] 69	8, 675
November	7, 527	7, 110	8, 695	7, 575	6, 604	[4] 153	7, 446
December	8, 403	6, 203	8, 743	7, 530	7, 189	[4] 226	7, 528

[1] Preliminary; subject to revision.
[2] Strike, Apr. 1 to Sept. 11, 1922.
[3] Strike for 3 weeks in September, 1923.
[4] Strike, Sept. 1, 1925, to Feb. 16, 1926.

Source: Bureau of Mines, Department of Commerce

Statistics for the 12 leading States, together producing approximately 95 per cent of the bituminous coal output, are shown in Table 16. Increases over 1925 appear in all of the States named, those for Kentucky, West Virginia, and Pennsylvania being most conspicuous. West Virginia, Kentucky, Alabama, and Virginia established new production records during the year.

Chart I.—**MONTHLY PRODUCTION OF BITUMINOUS AND ANTHRACITE COAL**

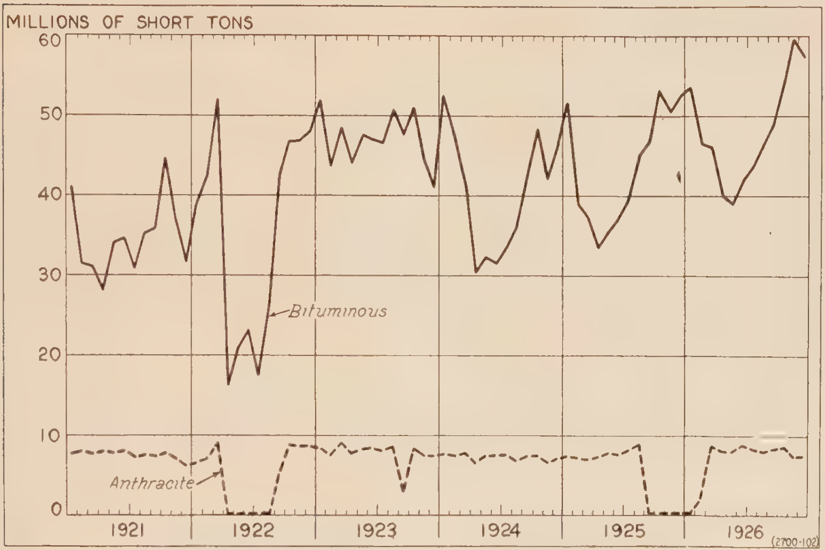


Table 16.—Production of Coal, by Principal States

[Thousands of short tons]

State	1911–1915	1916–1920	1921–1925	1922	1923	1924	1925	1926 [1]
Grand total	**529, 189**	**626, 386**	**558, 947**	**476, 951**	**657, 904**	**571, 613**	**581, 870**	**663, 290**
Anthracite (Pennsylvania)	**89, 233**	**92, 741**	**77, 648**	**54, 683**	**93, 339**	**87, 927**	**61, 817**	**85, 000**
Bituminous	**439, 955**	**533, 645**	**481, 299**	**422, 268**	**564, 565**	**483, 687**	**520, 053**	**578, 290**
Alabama	15, 864	17, 834	18, 097	18, 325	20, 458	19, 130	20, 004	22, 356
Colorado	9, 433	11, 595	10, 049	10, 020	10, 346	10, 444	10, 311	10, 579
Illinois	58, 320	78, 255	68, 523	58, 468	79, 310	68, 323	66, 909	69, 700
Indiana	16, 060	25, 515	21, 677	19, 133	26, 229	21, 480	21, 225	22, 839
Iowa	7, 442	7, 571	4, 952	4, 335	5, 711	5, 468	4, 715	5, 069
Kentucky	18, 380	30, 108	43, 743	42, 134	44, 777	45, 147	55, 069	63, 330
Ohio	28, 553	40, 609	31, 590	26, 954	40, 546	30, 473	28, 034	29, 150
Pennsylvania	157, 229	168, 532	133, 721	113, 148	171, 880	130, 634	136, 928	151, 119
Tennessee	6, 288	6, 208	5, 078	4, 877	6, 040	4, 557	5, 454	5, 897
Virginia	7, 924	10, 158	10, 648	10, 491	11, 762	10, 693	12, 800	13, 493
West Virginia	69, 353	86, 369	97, 044	80, 488	107, 900	101, 563	122, 381	147, 209
Wyoming	6, 907	8, 555	6, 812	5, 972	7, 575	6, 757	6, 553	6, 968
All other	38, 205	42, 338	29, 366	27, 924	32, 031	28, 918	29, 670	30, 581

[1] Preliminary.

Source: Bureau of Mines, Department of Commerce.

Table 17. -Percentage Distribution of Coal Production, by States

State	1911–1915	1921–1925	1926 [1]	State	1911–1915	1921–1925	1926 [1]
Grand total	100.0	100.0	100.0	Bituminous—Continued.			
				Kentucky	3.5	7.8	9.5
Anthracite (Pennsylvania)	16.9	13.9	12.8	Ohio	5.4	5.6	4.4
				Pennsylvania	29.7	23.9	22.8
Bituminous	83.1	86.1	87.2	Tennessee	1.2	.9	.9
Alabama	3.0	3.2	3.4	Virginia	1.5	1.9	2.0
Colorado	1.8	1.8	1.6	West Virginia	13.1	17.4	22.2
Illinois	11.0	12.3	10.5	Wyoming	1.3	1.2	1.1
Indiana	3.0	3.9	3.4	All other	7.2	5.3	4.6
Iowa	1.4	.9	.8				

[1] Based on preliminary figures.

Source: Bureau of Mines, Department of Commerce.

Recent years have witnessed a steady, if gradual, increase in the percentage of the total output of bituminous coal mined by machine each year, this percentage in 1925 being 70.6 as compared with 55 in 1915. (Table 18.) It will also be noted that the number of days worked by the mines averaged 195 in 1925 which was the largest for any year since 1920. Average daily output per man was approximately the same as in 1924, but the increase in number of days worked raised the average tonnage per man per year from 781 in 1924 to 884 in 1925.

A recent report of the Bureau of Mines shows an increase in use of loading machines underground from 1923 to 1925 amounting to 171 per cent, and the tonnage loaded by machines increased 232 per cent.

Table 18.—Coal: Men Employed, Days Worked, Average Production Per Man, and Per Cent of Bituminous Coal Mined by Machine

Year	Anthracite				Bituminous				
	Men employed	Average days worked	Average tonnage per man		Men employed	Average days worked	Average tonnage per man		Per cent of coal mined by machine
			Per day worked	Per year			Per day worked	Per year	
1890	126,000	200	1.85	369	192,204	226	2.56	579	(1)
1895	142,917	196	2.07	406	239,962	194	2.90	563	(1)
1900	144,206	166	2.40	398	304,375	234	2.98	697	24.9
1905	165,406	215	2.18	470	460,629	211	3.24	684	32.8
1910	169,497	229	2.17	498	555,533	217	3.46	751	41.7
1911	172,585	246	2.13	524	549,775	211	3.50	738	43.9
1912	174,030	231	2.10	485	548,632	223	3.68	820	46.8
1913	175,745	257	2.02	520	571,882	232	3.61	837	50.7
1914	179,679	245	2.06	505	583,506	195	3.71	724	51.7
1915	176,552	230	2.19	504	557,456	203	3.91	794	55.0
1916	159,869	253	2.16	548	561,102	230	3.90	896	56.5
1917	154,174	285	[2] 2.27	[2] 646	603,143	243	3.77	915	55.5
1918	147,121	293	[2] 2.29	[2] 672	615,305	249	3.78	942	55.9
1919	154,571	266	2.14	570	621,998	195	3.84	749	59.2
1920	145,074	271	[2] 2.28	[2] 618	639,547	220	4.00	881	59.8
1921	159,499	271	2.09	567	663,754	149	4.20	627	65.6
1922	156,849	151	2.31	349	687,958	142	4.28	609	63.2
1923	157,743	268	2.21	592	704,793	179	4.47	801	66.9
1924	160,009	274	2.00	550	619,604	171	4.56	781	69.5
1925	160,312	182	2.12	386	588,493	195	4.52	884	70.6

[1] Data not available.

[2] Heavy washery output.

Source: Bureau of Mines, Department of Commerce.

Anthracite Coal.

For a month and a half at the beginning of 1926 anthracite production was at a standstill on account of a general strike which began September 1, 1925. (Table 15.) After the settlement of the anthracite strike in February, through the making of a new wage agreement running for five years, production continued throughout the balance of the year at a high rate, and reached a total of 85,000,000 net tons, 37 per cent greater than in 1925 when production was suspended during the last four months, but nearly 3,000,000 tons less than the year 1924 when no general suspension hindered output.

COMMERCIAL STOCKS OF BITUMINOUS COAL

Commercial stocks of bituminous coal at the beginning of 1926 amounted to 49,000,000 net tons. This figure declined to 36,000,000 tons on May 1, but a gradual increase occurred thereafter to October 1, when stocks were 43,000,000 tons. (Table 19.) During the last three months of the year stocks were materially increased, and on January 1, 1927, they amounted to 55,000,000 tons, exclusive of coal in transit and on the upper lake docks. This last item amounted to 5,567,250 tons on the same date. Stocks on hand January 1, 1927, were estimated as sufficient to last the country 37 days, compared with a 30 days' supply on January 1, 1926. The building up of stocks of bituminous coal during the latter part of 1926 was the beginning of a movement by large consumers to safeguard themselves against any conditions that might prevail after the expiration on March 31, 1927, of the existing three-year wage agreement in the union bituminous fields.

Table 19.—Estimated Total Commercial Stocks of Bituminous Coal [1]

[In thousands of short tons]

Year	Month	Stocks	Year	Month	Stocks	Year	Month	Stocks
1916	Oct. 1	27,000	1922	Apr. 1	[2] 63,000	1925	Sept. 1	43,000
1917	do	28,100	1922	Sept. 1	22,000	1925	Nov. 1	48,000
1918	July 15	39,700	1922	Nov. 1	32,000	1926	Jan. 1	49,000
1918	Nov. 11	63,000	1923	Mar. 1	36,000	1926	Feb. 1	45,000
1919	Apr. 1	40,400	1923	June 1	42,000	1926	Apr. 1	40,000
1920	Mar. 1	24,000	1923	Sept. 1	56,000	1926	May 1	36,000
1920	June 1	20,000	1924	Jan. 1	62,000	1926	July 1	39,000
1921	Jan. 1	45,800	1924	June 1	51,000	1926	Aug. 1	41,000
1921	Aug. 1	41,000	1924	Sept. 1	47,000	1926	Oct. 1	43,000
1921	Nov. 1	48,500	1925	Mar. 1	44,000	1927	Jan. 1	[3] 55,000
1922	Jan. 1	48,000	1925	June 1	38,000	1927	Apr. 1	[3] 75,000

[1] The figures for 1918 are based upon actual count. Beginning Apr. 1, 1919, they are estimates based upon reports from a selected list of consumers whose stocks in 1918 bore a known relation to the known total stocks.

[2] No canvass made on this date. Figure is minimum estimate, calculated from total stocks on Mar. 1, which were 52,500,000 tons.

[3] Subject to revision.

Source: Joint Report of Bureau of Mines and Bureau of the Census, Department of Commerce.

COAL CONSUMPTION

No estimate of the apportionment of coal among major consuming groups has been made since that for 1923, printed on page 257, of the Commerce Yearbook for 1925.

The average rate of United States consumption and exports of bituminous coal, from 1918 to the end of 1926, is shown in Table 20. The periods covered by the table coincide with those covered by stock surveys, so that variations in stocks may be taken into account in estimating consumption. The high record of domestic consumption in January, 1926, was due to the additional supplies of bituminous coal required to meet the shortage of anthracite.

Table 20.—Average Weekly United States Consumption and Exports of Bituminous Coal

[In thousands of short tons]

Period	Net United States consumption [1]	Exports	Total consumption and exports
1918, Nov. 11 to Dec. 31	10, 600	344	10, 944
1921, Nov. 1 to Dec. 31	8, 400	238	8, 638
1922, Nov. 1 to Dec. 31	9, 960	397	10, 357
1923, January	[2] 11, 370	276	11, 646
1923, February	[2] 11, 550	226	11, 776
1923, Oct. 1 to Dec. 31	10, 080	326	10, 406
1925, Nov. 1 to Dec. 31	[2] 11, 680	369	12, 049
1926, January	[2] 12, 700	251	12, 951
1926, May 1 to July 1	8, 030	470	8, 500
1926, Aug. 1 to Oct. 1	9, 440	936	10, 376
1926, Oct. 1 to Dec. 31	11, 200	1, 116	12, 316

[1] Production plus imports and minus exports, plus or minus changes in stocks. Allowance is made for stocks at the mines; coal in transit including unbilled loads, coal in cars enroute to destination, and coal on the lake docks; and stocks of commercial consumers.

[2] Bituminous coal required to meet shortage of anthracite.

Source: Bureau of Mines, Department of Commerce.

DISTRIBUTION OF BITUMINOUS COAL

Although data showing the general distribution of bituminous coal are not available later than 1923, some of the larger movements are indicated in Tables 21 and 22. Shipments, including fuel for vessels, via the Great Lakes in 1926 were 29,744,000 short tons, an increase of 7 per cent over 1925. Of the total shipment of cargo coal on the Great Lakes, 83 per cent went to United States ports and 17 per cent to Canadian destinations.

Shipments of bituminous coal from Atlantic ports, shown in Table 22, amounted to 57,575,000 tons in 1926. The year's shipments were more than half as great again as in 1925 and the large foreign demand resulting from the strike in the British coal fields raised total shipments to 7 per cent above the previous postwar peak of 1920. The great bulk of the increase in shipments was accounted for by the large amount of exports which were more than four times as great as in 1925. The ports of Baltimore and Hampton Roads handled most of the excess, more than 53 per cent of the total being shipped from Hampton Roads.

Table 21.—Bituminous Coal Dumped into Vessels at Lake Erie Ports

[Quantities in thousands of short tons]

Destination	Quantity						Per cent	
	1921	1922	1923	1924	1925	1926	1925	1926
Total dumped	23, 171	19, 351	31, 457	24, 323	27, 863	29, 744		
Cargo coal[1]	22, 412	18, 522	29, 829	22, 975	26, 331	28, 159	100. 00	100. 00
Vessel fuel	759	829	1, 629	1, 348	1, 532	1, 585		
United States	17, 632	14, 826	24, 172	18, 223	22, 125	23, 232	84. 1	82. 7
Lake Superior ports	9, 908	6, 700	13, 808	9, 539	10, 842	11, 215	41. 2	39. 9
Lake Michigan ports	6, 173	5, 486	8, 088	6, 551	8, 203	9, 085	31. 2	32. 3
All other ports	1, 551	2, 640	2, 276	2, 133	3, 080	2, 932	11. 7	10. 5
Canada	4, 780	3, 696	5, 475	4, 901	4, 178	4, 861	15. 9	17. 3
Lake Superior ports	2, 006	1, 902	2, 292	2, 014	807	1, 106	3. 1	3. 9
All other ports	2, 774	1, 794	3, 183	2, 887	3, 371	3, 755	12. 8	13. 4

[1] Disparity between total cargo coal and sum of quantities shown for the several destinations is due to the act that close of navigation prevents certain vessels from reaching destination during the same year.

Source: Ore and Coal Exchange.

Table 22.—Bituminous Coal Shipments from Atlantic Ports

[In thousands of short tons]

Port	1919	1920	1921	1922	1923	1924	1925	1926
Total	**37, 062**	**53, 784**	**37, 323**	**28, 473**	**37, 521**	**33, 217**	**37, 124**	**57, 575**
Shipped from:								
New York	14, 234	14, 825	11, 912	7, 440	10, 800	9, 005	9, 230	10, 337
Philadelphia	4, 411	6, 191	3, 641	2, 158	3, 893	2, 877	3, 108	5, 447
Baltimore	3, 467	7, 831	4, 136	1, 917	5, 068	3, 063	3, 430	10, 353
Hampton Roads	14, 630	24, 026	17, 242	16, 626	17, 384	18, 094	21, 113	30, 716
Charleston	320	911	392	332	376	178	242	722
Destination:								
Coastwise to New England	8, 386	10, 456	8, 859	10, 892	13, 374	11, 488	13, 463	12, 949
Exports	8, 292	21, 778	9, 633	1, 613	5, 122	4, 768	5, 109	21, 900
Bunker	6, 874	9, 171	8, 135	4, 576	5, 442	4, 961	5, 488	8, 545
Inside capes	3, 438	3, 410	3, 251	3, 332	4, 460	3, 753	4, 348	4, 373
Other tonnage	10, 072	8, 968	7, 445	8, 059	9, 123	8, 246	8, 715	9, 808

Source: Bureau of Mines, Department of Commerce.

PRICE MOVEMENT

The annual average spot price of bituminous coal f. o. b. the mines was $2.21 per short ton in 1926 (Table 23), a small increase over that of the two previous years, but lower than for any other year since 1916. There was an increase in the general average price of coal from all regions except Indiana (fourth and fifth vein). During the first three months of the year the average spot price of bituminous coal for the country as a whole was a little higher than for the corresponding period a year earlier, but was lower, month by month, than for any year from 1920 to 1924. From April to September, however, prices ruled lower than in 1925 (Table 24) and lower than at almost any other time in recent years. During the last three months of 1926 prices advanced sharply and were higher than in the closing quarter of 1925, or the last quarter of any other year since 1922.

Table 23.—Annual Average Spot Prices of Mine-Run Coal f. o. b. Mines

NOTE.—General average represents weighted average price for 14 coals, representative of nearly 90 per cent of the bituminous output of the United States. See also footnotes to Table 25.

[Per short ton of 2,000 pounds]

Year	General average	Somerset, Pa.	Pittsburgh, Pa.	Southern West Virginia smokeless	Eastern Kentucky	Western Kentucky	Indiana fourth and fifth vein	Southern Illinois	Hocking, Ohio
1913	$1.23	$1.35	$1.27	$1.34	$1.59	$1.00	$1.18	$1.14	$1.22
1914	1.14	1.26	1.17	1.23	1.37	.90	1.12	1.11	1.12
1915	1.12	1.31	1.04	1.22	1.34	.92	1.08	1.09	1.10
1916	1.85	2.31	2.07	2.13	1.98	1.33	1.56	1.52	1.88
1917	3.25	3.88	3.58	3.80	3.39	2.38	2.77	2.68	3.30
1918	2.58	2.92	2.40	2.50	2.98	2.40	2.40	2.43	2.54
1919	2.59	3.08	2.11	2.93	2.80	2.30	2.45	2.42	2.29
1920	5.64	6.76	5.72	7.23	6.21	4.22	3.98	4.18	4.67
1921	2.55	2.50	2.25	2.43	2.47	2.24	2.63	3.00	2.17
1922	3.67	3.50	2.78	3.52	3.45	3.25	3.33	3.55	3.24
1923	2.77	3.01	2.27	3.51	2.27	1.92	2.57	3.07	2.11
1924	2.08	2.15	1.93	1.98	1.59	1.61	2.27	2.38	1.69
1925	2.06	2.05	1.98	2.06	1.58	1.34	2.18	2.39	1.59
1926	2.21	2.26	2.06	2.46	1.83	1.36	2.15	2.47	1.75

Sources: For 1913–1918 from report on "Prices of Coal and Coke, 1913–1918," published by Geological Survey and the War Industries Board; 1919–1926 from Coal Age.

Table 24.—General Weighted Average of Spot Prices of Bituminous Coal f. o. b. Mines, by Months

[Per short ton of 2,000 pounds]

Month	1920	1921	1922	1923	1924	1925	1926
January	$2.57	$3.26	$2.25	$4.38	$2.21	$2.10	$2.18
February	2.58	2.77	2.20	3.59	2.25	2.04	2.09
March	2.58	2.63	2.12	3.20	2.15	1.99	2.01
April	3.85	2.62	2.24	2.84	2.07	1.95	1.92
May	4.59	2.68	3.11	2.68	2.04	1.97	1.93
June	7.18	2.52	3.32	2.56	2.03	1.95	1.90
July	8.24	2.40	4.67	2.40	1.98	1.93	1.91
August	9.51	2.42	6.13	2.39	1.99	2.04	2.00
September	8.52	2.37	5.58	2.46	2.02	2.18	2.15
October	7.78	2.33	4.48	2.28	2.10	2.13	2.70
November	5.87	2.35	4.11	2.25	2.06	2.26	3.19
December	4.38	2.26	4.05	2.18	2.06	2.19	2.53

Source: Coal Age.

A general uniformity in trend may be observed in the prices of coal from different fields during 1926. (Table 25.) With two exceptions, prices were higher at the beginning of the year than in January, 1925, and for each field there was a decline in price during the middle of the year followed by a decided recovery toward the close. These changes were, however, very different in degree. The highest average price for any month and field was for West Virginia smokeless which in November sold for $4.18 per ton, 132 per cent higher than its low monthly average price in April. Coal from eastern Kentucky showed a range of 108 per cent in price, while that from the Somerset and Pittsburgh fields brought 68 per cent, and 59 per cent more, respectively, in November than in June, the low month. For the other two fields the variation in monthly average price showed a much narrower range. The high price of coal from each field was in November when the demand from foreign markets was at its height.

Chart II.—MONTHLY AVERAGE MINE PRICE OF BITUMINOUS COAL

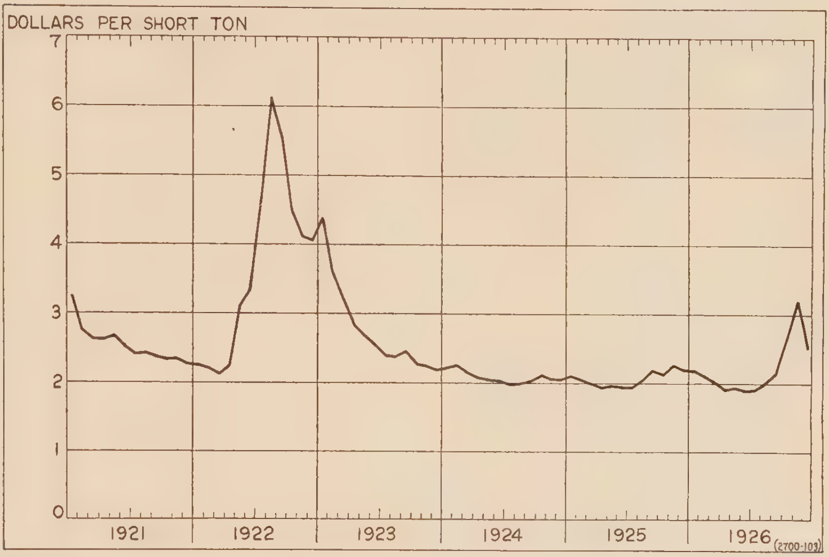


Table 25.—Monthly Average Spot Prices of Mine-Run Coal f. o. b. Mines, by Fields

[Per short ton of 2,000 pounds]

Month	Somerset, Pa.[1]		Pittsburgh, Pa.[2]		Southern West Virginia smokeless [3]		Eastern Kentucky [4]		Western Kentucky [5]		Indiana fourth and fifth vein [6]		Southern Illinois [6]	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
January	$2.11	$2.12	$1.91	$2.05	$1.88	$2.37	$1.44	$1.67	$1.54	$1.44	$2.25	$2.14	$2.38	$2.50
February	2.13	2.19	1.95	2.05	1.79	2.29	1.42	1.61	1.40	1.42	2.25	2.14	2.38	2.47
March	2.11	2.10	1.88	2.01	1.83	1.98	1.39	1.50	1.35	1.29	2.21	2.10	2.38	2.43
April	2.09	1.97	1.83	1.95	1.85	1.80	1.43	1.56	1.35	1.21	2.09	2.08	2.38	2.43
May	2.03	1.97	1.92	1.83	1.83	1.92	1.48	1.56	1.35	1.19	2.18	2.08	2.38	2.43
June	1.97	1.92	1.95	1.77	1.83	1.93	1.55	1.54	1.28	1.17	2.18	2.08	2.38	2.25
July	1.88	1.95	1.95	1.75	1.84	1.95	1.57	1.57	1.28	1.19	2.18	2.08	2.38	2.38
August	1.89	1.95	1.95	1.81	2.07	2.27	1.65	1.65	1.29	1.19	2.18	2.13	2.38	2.43
September	2.07	1.99	2.05	2.00	2.52	2.62	1.74	1.74	1.31	1.21	2.18	2.13	2.38	2.43
October	2.06	2.90	2.09	2.61	2.28	3.42	1.72	2.28	1.30	1.28	2.18	2.13	2.38	2.43
November	2.19	3.22	2.19	2.78	2.51	4.18	1.78	3.12	1.31	1.99	2.18	2.41	2.43	2.77
December	2.06	2.82	2.05	2.15	2.47	2.99	1.78	2.14	1.31	1.72	2.16	2.36	2.50	2.75

[1] Boston market.
[2] Pittsburgh market.
[3] Average of quotations on Boston, Chicago, Cincinnati, and Columbus markets.
[4] Average of quotations on Louisville, Cincinnati, and Chicago markets.
[5] Average of quotations on Louisville and Chicago markets.
[6] Chicago market.

Source: Coal Age.

The average wholesale price of anthracite at New York for 11 months of 1926 was higher than for any other year, being 127 per cent greater than in 1913 and 76 per cent above 1918. Average wholesale prices of anthracite and bituminous coal for various grades and markets are shown in Table 26. Since these are market prices they are somewhat higher than those shown in other tables which are for coal at mines and do not include transportation costs.

Table 27 shows average retail prices of coal in certain cities, as of January and July of each year since 1913. The retail price of anthracite was higher in January, 1927, than for the same month in 1925 (on account of the strike there were no quotations for January, 1926) but lower than in 1921, 1923, or 1924. The price of bituminous coal in January, 1927, was the highest since 1923.

Table 26.—Wholesale Prices of Coal at Central Markets

[Prices per short ton except as indicated]

Grade and market	1913	1918	1921	1922	1923	1924	1925	1926
Anthracite, egg, New York (long ton)	$5.06	$6.51	$10.22	$10.41	$10.87	$11.35	[1]$11.11	[2] $11.48
Bituminous:								
Southern Illinois, prepared sizes, Chicago	-------	4.01	6.02	6.59	6.13	4.79	4.75	4.66
Kanawha, run of mine, f. o. b., Cincinnati	2.20	3.88	4.56	5.20	4.31	3.43	3.40	3.62
New River, mine run, f. o. b., Cincinnati	2.41	4.10	5.51	5.62	5.72	4.14	4.12	4.42
Pocahontas, mine run, f. o. b., Norfolk, (long ton)	3.00	4.48	6.35	6.32	5.83	4.45	4.64	5.38
Pittsburgh, prepared sizes	-------	3.36	3.80	5.16	4.60	4.15	3.98	3.81

[1] No quotations during strike, Sept. 1, 1925 to Feb. 16, 1926. [2] Average for 11 months.

Source: Bureau of Labor Statistics, Department of Labor.

Table 27.—Retail Prices of Coal in Ton Lots

Note.—Anthracite prices represent average for 28 cities, bituminous for 38 cities.

[Per short ton]

Year	Anthracite (chestnut)		Bituminous		Year	Anthracite (chestnut)		Bituminous	
	Jan.	July	Jan.	July		Jan.	July	Jan.	July
1913	$8.15	$7.68	$5.48	$5.39	1921	$16.13	$14.95	$11.82	$10.47
1914	8.00	7.78	5.97	5.46	1922	15.02	14.92	9.89	9.49
1915	7.99	7.73	5.71	5.44	1923	15.46	15.05	11.18	10.04
1916	8.13	8.28	5.69	5.52	1924	15.76	15.10	9.75	8.94
1917	9.40	9.16	6.96	7.21	1925	15.37	14.93	9.24	8.61
1918	10.03	10.07	7.68	7.92	1926	(1)	15.19	9.74	8.70
1919	11.61	12.17	7.90	8.10	1927	15.42	--------	9.97	--------
1920	12.77	14.33	8.81	10.55					

[1] Not available; insufficient data due to coal strike.

Source: Bureau of Labor Statistics, Department of Labor.

FOREIGN TRADE

Exports of bituminous coal in 1926 amounted to 31,493,000 long tons (equal to 35,272,000 short tons), more than double the exports during 1925, and exceeding all other years except 1920. (Table 28.) These exports amounted to about 6 per cent of the total production of bituminous coal. The British coal strike was the cause of our exporting 10,757,000 long tons to the United Kingdom alone. There were also larger shipments than usual to other European countries, while Brazil took about 600,000 tons and Argentina 800,000 tons more than the year before. Exports to Canada were about the same as in 1925.

Chart III.—EXPORTS OF BITUMINOUS AND ANTHRACITE COAL

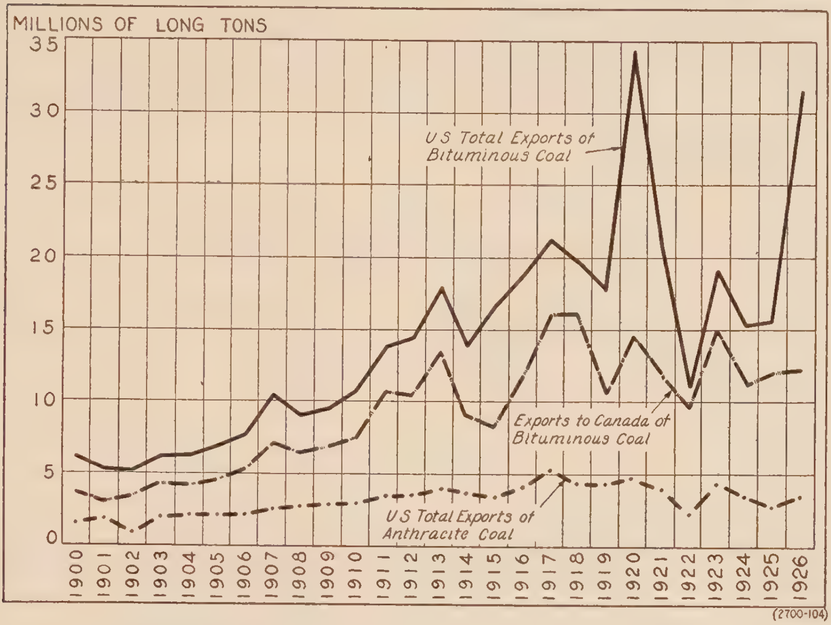


Table 128.—Exports of Bituminous Coal, by Destination[1]

[In thousands of long tons]

Country	1913 [2]	1918	1919	1920	1921	1922	1923	1924	1925	1926 [3]
Grand total	**16,083**	**19,956**	**17,959**	**34,390**	**20,653**	**11,083**	**19,155**	**15,268**	**15,591**	**31,493**
France	16	7	523	3,646	608	12	843	421	234	486
Italy	332	10	1,633	2,388	1,549	124	585	871	778	1,542
Netherlands	(4)	17	722	2,147	334	3	379	----	----	28
Other Europe	127	9	1,215	4,980	[5] 2,433	14	585	65	25	[6] 12,055
Mexico and Central America	994	678	193	391	418	207	123	329	432	524
West Indies	593	276	288	372	207	180	271	363	412	563
Cuba	1,274	1,440	971	1,333	524	464	611	535	620	550
Argentina	39	179	483	1,718	753	79	131	196	147	996
Brazil	234	559	634	965	527	152	311	759	587	1,191
Chile	112	300	94	494	151	47	20	55	24	3
Other South America	56	271	276	348	140	29	61	107	60	247
Other overseas	298	17	252	1,092	1,043	95	145	175	180	1,044
Total overseas	4,075	3,763	7,285	19,874	8,688	1,406	4,065	3,876	3,499	19,229
Canada	11,981	16,191	10,669	14,491	11,961	9,675	15,048	11,299	11,983	12,173
Other North America	27	2	4	25	5	2	42	93	109	91

[1] Does not include fuel or bunker coal laden on vessels engaged in the foreign trade.
[2] Fiscal year ended June 30.
[3] Preliminary.
[4] Less than 500 tons.
[5] To United Kingdom, 1,497,000 tons.
[6] To United Kingdom, 10,757,000 tons.

Source: Bureau of Foreign and Domestic Commerce.

For a number of years exports of anthracite have represented between 10 and 20 per cent of our total coal exports. (Table 29.) In 1926 this proportion declined although anthracite exports amounted to 3,598,000 long tons as compared with 2,838,000 tons in the previous year.

Imports of anthracite and bituminous coal combined amounted to 1 201,000 long tons in 1926, of which anthracite constituted 727,000 tons and bituminous 475,000 tons. As compared with the previous year, imports of bituminous coal declined about 12 per cent, whereas imports of anthracite more than doubled. As in earlier years, Canada was the chief source of bituminous and Great Britain of anthracite imports.

Table 29.—Coal Exports and Imports

[Quantities in thousands of long tons, and values in thousands of dollars]

Calendar year	Total exports		Anthracite exports		Bituminous experts [1]				Total imports [2]	
	Quantity	Value	Quantity	Value	Quantity			Total value	Quantity	Value
					Total	To Canada	Per cent to Canada			
1890	2,075	7,278	794	3,273	1,281	(3)	(3)	4,005	835	2,869
895	3,683	10,754	1,471	5,937	2,212	(3)	(3)	4,817	1,354	3,955
1900	7,918	21,524	1,655	7,092	6,263	(3)	(3)	14,432	1,909	5,020
1905	9,189	28,973	2,230	11,105	6,959	4,777	68.6	17,868	1,645	4,011
1910	13,806	41,471	3,022	14,785	10,784	7,567	70.2	26,685	1,994	4,803
1911	17,433	52,593	3,554	18,093	13,879	10,610	76.4	34,500	1,241	3,623
1912	18,149	56,243	3,689	19,425	14,460	10,433	72.2	36,818	1,610	4,518
1913	22,141	67,410	4,154	21,960	17,987	13,496	75.0	45,450	1,415	3,863
1914	17,632	54,316	3,830	20,211	13,802	9,171	66.4	34,105	1,395	3,928
1915	20,305	61,246	3,540	18,429	16,765	8,354	49.8	42,817	1,524	4,413
1916	23,143	68,298	4,166	22,470	18,977	11,839	62.4	45,828	1,536	4,734
1917	26,649	110,413	5,364	30,910	21,285	16,178	76.0	79,503	1,304	4,842
1918	24,392	107,881	4,436	29,216	19,956	16,191	81.1	78,665	1,334	6,898
1919	22,402	120,377	4,443	36,668	17,959	10,669	59.4	83,709	977	5,473
1920	39,215	349,811	4,825	45,538	34,390	14,491	42.1	304,273	1,140	6,992
1921	24,829	168,222	4,176	45,625	20,653	11,961	57.9	122,597	1,131	7,457
1922	13,449	91,242	2,366	25,351	11,083	9,675	87.3	65,892	4,726	28,250
1923	23,700	154,124	4,545	49,577	19,155	15,048	78.6	104,547	1,949	12,249
1924	18,855	111,039	3,587	40,068	15,268	11,299	74.0	70,971	478	3,019
1925	18,429	100,163	2,838	31,761	15,591	11,983	76.9	68,403	879	5,846
1926 [4]	35,091	196,905	3,598	41,086	31,493	12,173	38.7	155,819	1,201	9,301

[1] Does not include fuel or bunker coal laden on vessels engaged in the foreign trade.
[2] Imports to and including 1910 are imports for consumption.
[3] Not reported separately.
[4] Preliminary.

Source: Bureau of Foreign and Domestic Commerce.

WORLD PRODUCTION

According to a preliminary estimate of the Bureau of Mines, in 1926 the world's total production of coal, including lignite, was approximately 1,355,000,000 metric tons, which is equivalent to 1,494,000,000 short tons. (Tables 30 and 31.) During the past four years there has been only a slight variation in total world production which has remained very near the 1913 level, although individual countries have shown considerable changes. The output of the United States declined 13 per cent in 1924 but increased the two following years, so that in 1926 it was 1 per cent greater than in 1923 and represented 44 per cent of the world total. In the production of Great Britain there was a falling trend throughout the period which was greatly exaggerated during 1926, when, on account of the protracted strike, the total output was just a little more than half that of the year before. Other important coal-producing countries of Europe, however, showed a steady upward trend, particularly France and Germany.

Table 30.—World Production of Coal, and Production and Net Exports or Imports of the Four Leading Countries

Millions of short tons. Pre-war figures for Germany and France not adjusted to present boundaries]

Year	World production	United States			United Kingdom		Germany			France	
		Production	Per cent of world total	Net exports [1] (+) or imports (−)	Production	Net exports [1] (+) or imports (−)	Production [2]		Net exports [3] (+) or imports (−)	Production [3]	Net exports [1] (+) or imports (−)
							Coal	Lignite			
1900	846	270	31.9	[4] +7	[5] 252	+52	165		([6])	37	−15
1905	1,036	393	37.9	+8	[5] 264	+53	192		+1	39	−11
1910	1,279	502	39.2	+13	[5] 296	+69	245		+6	43	−2
1913	1,479	570	38.6	+23	322	+82	210	96	+19	45	−22
1920	1,454	658	45.3	+43	257	+28	155	123	+5	28	−28
1921	1,250	506	40.5	+27	183	+24	161	136	[7] +2	32	−20
1922	1,352	477	35.3	+10	[5] 280	+72	[8] 156	151	−11	35	−25
1923	1,498	657	43.9	+24	[5] 312	+89	79	130	−28	42	−29
1924	1,496	572	38.3	+21	[5] 299	+69	146	137	−14	50	−26
1925	1,500	582	38.8	+20	[5] 272	+57	161	154	+4	53	−15
1926	1,494	664	44.5	+38	[5] 141	+1	175	154	+27	58	−11

[1] Not including bunker coal.
[2] Includes production of the Saar Basin in all years.
[3] Includes lignite.
[4] Includes coal, coke, cinders, and manufactured fuel.
[5] Not including Ireland.
[6] Net exports less than one-half million.
[7] Data available for only 8 months, May to December, inclusive.
[8] Includes entire output of Upper Silesia for January to May; but for June to December, only that part of Upper Silesia allocated to Germany.

Sources: Bureau of Mines, Bureau of Foreign and Domestic Commerce, and trade returns of the respective countries.

In the calculation of world coal production lignite has been included on the basis of total tonnage produced, although it is of very much lower heat value. Because of the great variation in the heat value of lignite from different countries or different regions, it is difficult to reduce lignite output to a coal equivalent. As an index, however, of the relative importance of lignite in total coal production, Table 31 shows the coal equivalent of the total production of lignite using the ratio of 3 tons of lignite as equal to 1 ton of coal. For purposes of general comparison, the production of the individual countries can also be equilibrated upon the same basis.

Table 31.—Production of Coal and Lignite in Principal Countries

NOTE.—The heat value of lignite is estimated to be about one-third that of coal, although lignite from different regions varies considerably. Figures in this table represent actual tonnage produced, except that for total lignite the approximate coal equivalent is also shown.

[Thousands of metric tons of 2,204.6 pounds]

Country	1913	1921	1922	1923	1924	1925	1926 [1]
World total, including lignite	**1,342,000**	**1,135,000**	**1,226,000**	**1,360,000**	**1,357,000**	**1,361,000**	**1,355,000**
Lignite, total	139,000	153,000	179,000	159,000	169,000	183,000	[2] 182,000
Coal equivalent	46,000	51,000	60,000	53,000	56,000	61,000	61,000
North America:							
United States—							
Anthracite	517,057	82,076	49,607	84,675	79,765	56,079	77,000
Bituminous and lignite		377,316	383,073	512,162	438,791	471,781	524,613
Canada—							
Coal	---	10,684	10,588	12,164	9,139	8,628	11,676
Lignite	13,619	2,976	3,163	3,250	3,233	3,288	3,254
Mexico	(3)	735	933	1,262	1,227	(3)	(3)
South America:							
Chile	1,283	1,275	1,053	1,164	1,539	(3)	(3)
Europe:							
Austria—							
Coal	[4] 16,460	138	166	158	172	(3)	(3)
Lignite	[4] 27,378	2,479	3,136	2,685	2,786	(3)	(3)
Belgium	22,842	21,750	21,209	22,922	23,362	23,097	25,320
Bulgaria [5]	358	940	1,030	1,075	1,225	(3)	(3)
Czechoslovakia—							
Coal	---	12,023	10,465	12,347	15,179	12,754	14,408
Lignite	---	21,335	19,174	16,266	20,460	18,789	18,614
France [6]	40,844	28,961	31,913	38,556	44,955	48,055	52,478
Germany—							
Coal	190,109	136,251	129,965	62,316	118,769	132,729	145,363
Lignite [7]	87,233	123,064	137,207	118,785	124,637	139,804	139,877
Saar	---	9,575	11,240	9,192	14,032	12,990	13,581
Hungary—							
Coal	1,320	6,418	941	793	744	805	827
Lignite	8,954		6,776	6,895	6,333	5,521	5,822
Netherlands [6]	1,873	4,365	4,895	5,649	6,371	7,325	8,651
Poland [6]	---	7,843	24,195	36,269	32,313	29,146	35,429
Rumania—							
Coal	241	1,805	255	292	297	(3)	(3)
Lignite			1,862	2,229	2,479	(3)	(3)
Russia	33,814	7,551	7,781	[8] 14,504	[9] 13,918	[9] 14,335	[8][9] 25,300
Spain—							
Coal	4,016	5,012	4,436	5,971	6,128	6,117	6,310
Lignite	277	409	330	394	412	403	354
United Kingdom [10]	292,044	165,781	253,613	280,430	271,405	247,079	127,589
Yugoslavia	---	3,063	3,727	4,001	4,185	(3)	(3)
Asia:							
British India	16,468	19,613	19,316	19,972	21,514	21,240	21,000
China	13,779	19,876	22,681	19,955	20,969	13,800	(3)
Dutch East Indies	---	1,213	1,032	1,157	1,447	(3)	(3)
Indo-China	430	921	989	1,057	1,236	(3)	(3)
Japan [6]	21,838	27,614	29,330	30,568	31,994	33,533	(3)
Russia	2,162	1,364	1,276	(8)	[9] 2,271	(3)	(8)
Africa: Union of South Africa	7,984	10,339	9,272	11,252	11,820	12,322	12,850
Oceania:							
Australia	12,617	13,084	12,496	12,837	14,108	14,736	[11] 10,700
New Zealand—							
Bituminous	1,916	1,838	984	951	1,102	1,045	(3)
Lignite			904	1,051	1,014	1,070	(3)

[1] Preliminary figures.
[2] Estimated on basis of 1925 ratio to total.
[3] Estimate included in total.
[4] Including territory now allocated to Czechoslovakia.
[5] Chiefly lignite.
[6] Including not more than 3 per cent lignite.
[7] See head note.
[8] Russia in Asia included with Russia in Europe
[9] Year ended September 30.
[10] Not including Ireland.
[11] New South Wales only.

Source: Bureau of Mines, Department of Commerce.

COKE

General Character of the Industry.

Coke is the solid residue from the destructive distillation of coal. It is produced by either burning the coal with restricted air supply or subjecting it to high temperatures in closed retorts with no air admission. The wasteful method of burning the coal in pits was supplanted by the introduction of ovens shaped like beehives which increased in number and output from 1880 to 1910. The first by-product oven was erected in the United States in 1893. This type of oven has become of the greatest importance because it saves all the valuable gaseous and liquid constituents of the coal in addition to yielding a higher percentage of coke than the beehive oven. The use of the by-product oven was quite limited prior to 1910, but it has now become the prevailing method of producing coke, as is indicated by Table 32.

In the by-product coke industry distinction is made between plants which act as independent merchant producers, and those which are affiliated with city gas works, the iron and steel industry, or other industries. In the northwest the beehive type of oven prevails, while the by-product ovens are located in the iron and steel regions or near large cities where there is an outlet for both gas and coke. According to the purpose for which coke is used, it is classed as furnace, foundry, or domestic.

Table 32.—Coke Production, Exports, and Imports

Year	Production (thousands of short tons)			By-product ovens, per cent of total	Value of product (thousands of dollars)	Exports		Imports[1]
	Total	Beehive ovens	By-product ovens			Total	To Canada[2]	
						Thousands of short tons		
1896–1900	16,265	15,741	524	3.2	30,293	265	108	54
1901–1905	25,673	23,566	2,107	8.2	58,581	519	244	150
1906–1910	36,848	31,296	5,552	15.1	91,068	904	549	159
1911–1915	40,394	29,000	11,394	28.2	103,739	897	662	98
1916–1920	52,429	27,733	24,696	47.1	320,799	1,182	789	34
1921–1925	42,985	11,026	31,959	74.4	251,967	734	568	99
1913	46,300	33,585	12,715	27.5	128,922	987	757	101
1920	51,345	20,511	30,834	60.1	494,246	920	594	41
1921	25,288	5,538	19,750	78.1	147,673	307	228	31
1922	37,124	8,573	28,551	76.9	238,313	512	411	94
1923	56,978	19,380	37,598	66.0	373,497	1,237	748	85
1924	44,270	10,286	33,984	76.8	237,792	659	549	83
1925	51,267	11,355	39,912	77.8	262,559	954	903	202
1926[3]	56,036	11,486	44,550	79.5	([4])	987	933	285

[1] Imports entered for consumption, except in 1925 and 1926 when they are total imports.

[2] Fiscal years 1896–1915; calendar years thereafter.

[3] Preliminary.

[4] Not yet available.

Source: Bureau of Mines, Department of Commerce

Production.

The total production of coke in the United States in 1926, according to a preliminary estimate of the Bureau of Mines, was 56,036,000 short tons, 9 per cent greater than in 1925 and nearly as great as the record production in 1923. Production of by-product coke represented almost 80 per cent of the total, the highest proportion ever attained. (Table 32.) Although 1926 was a year of active demand, the beehive ovens supplied even less than they did in 1921, a year of acute depression.

Preliminary figures of the Census of Manufactures for 1925 show that there was a considerable decline in the coke industry, as compared with 1923. The number of establishments was only 237 whereas it was 262 during the previous census year. The number of wage earners fell off 18 per cent while wages declined almost 24 per cent. The cost of materials was 22 per cent less in 1925 and the value of products was 27 per cent lower. This decline may be partly explained by the coal strike which particularly affected the beehive ovens.

Chart IV.—PRODUCTION OF BEEHIVE AND BY-PRODUCT COKE

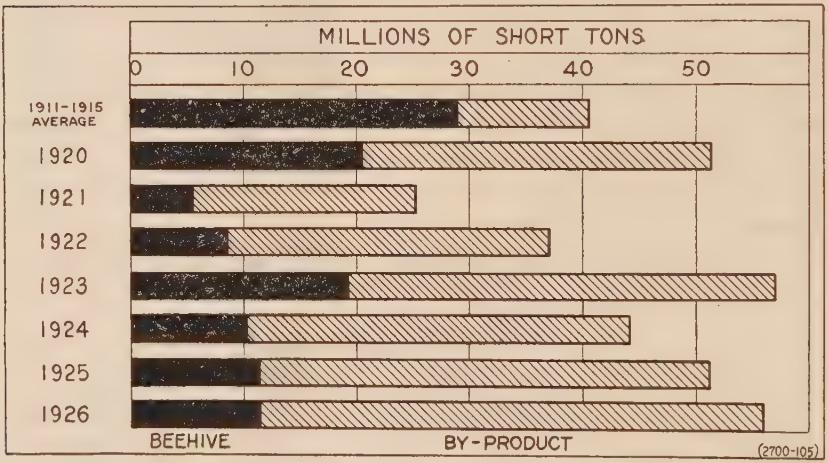


Table 33.—The Coke Industry: Census Data

NOTE.—In 1925 gas-house coke to the amount of 4,032,187 short tons, including 2,398,391 short tons for sale, valued at $20,721,381, was reported as made by establishments classified in the manufactured-gas industry, and not here included. Considerable quantities of gas-house coke were produced in other years.

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture	Coke produced, short tons
1899	241	16, 999	34, 767	$7, 085, 736	$19, 665, 532	$35, 585, 445	$15, 919, 913	19, 668, 569
1909	315	29, 273	61, 717	15, 454, 345	64, 024, 527	95, 696, 622	31, 672, 095	39, 315, 065
1914	231	21, 107	117, 127	14, 288, 952	69, 138, 328	99, 275, 020	30, 136, 692	34, 555, 914
1919	278	29, 319	224, 879	42, 299, 292	224, 266, 674	316, 515, 838	92, 249, 164	43, 110, 644
1921 [1]	176	16, 070	(2)	23, 832, 946	168, 790, 864	221, 313, 363	52, 522, 499	24, 583, 940
1923 [1]	262	28, 364	332, 560	48, 107, 894	354, 030, 441	516, 922, 898	162, 892, 457	56, 017, 325
1925 [1]	237	23, 191	409, 552	36, 762, 401	277, 750, 675	378, 633, 527	100, 882, 852	50, 141, 774

[1] The figures for 1921, 1923, and 1925 do not include data for establishments reporting products under $5,000 in value.

[2] Not called for in schedule for 1921.

Source: Bureau of the Census.

Prices.

The average Connellsville prices of furnace and foundry coke in 1926 were $3.92 and $4.96 per short ton, respectively. Furnace coke averaged about 4 per cent higher than the year before, while foundry coke was 8 per cent higher. For both grades prices have increased in each of the last two years, but were very much lower than in 1922 and 1923. During the course of the year extreme variations in prices occurred. The anthracite strike caused high coke prices during January and February. Prices, however, declined during the following six months to less than one-half the February peak. During December, the prices of both grades of coke averaged lower than for any year since 1922.

Table 34.—Coke Prices f. o. b. Connellsville per Short Ton Prompt Delivery

Period	Furnace	Foundry	Month	Furnace					Foundry				
				1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
1901–1905	[1] $2.30	(1)	January	$2.75	$8.05	$3.94	$3.94	$7.19	$3.75	$8.70	$4.75	$4.88	$7.75
1906–1910	[1] 2.24	(1)	February	3.04	7.13	4.08	3.63	7.31	4.00	8.25	4.88	4.31	8.31
1911–1915	1.98	$2.43	March	3.25	7.25	4.08	3.35	3.05	4.25	8.38	4.88	4.15	4.40
1916–1920 [2]	6.98	7.79	April	4.48	6.31	3.75	3.04	3.00	5.06	7.56	4.75	4.00	4.06
1921–1925	4.61	5.59	May	6.00	5.15	3.25	3.00	2.91	6.30	6.15	4.69	4.00	4.00
			June	6.75	4.75	3.19	2.77	2.83	7.25	5.56	4.38	3.80	4.00
1913	2.42	2.98											
1920	11.32	12.27	July	10.75	4.55	3.00	2.83	2.84	11.00	5.35	4.10	3.75	4.00
1921	3.45	4.63	August	12.80	4.56	3.00	3.06	2.95	13.90	5.38	4.00	3.88	4.00
1922	7.06	8.00	September	11.13	4.50	3.00	3.49	3.38	12.50	5.50	4.00	4.25	4.38
			October	9.60	3.85	3.00	6.13	3.63	11.70	4.80	4.00	6.31	4.63
1923	5.33	6.27	November	7.19	3.81	3.04	5.75	4.43	8.38	4.81	4.06	6.81	5.50
1924	3.42	4.42	December	7.00	4.00	3.68	4.32	3.50	7.88	4.81	4.55	5.20	4.50
1925	3.78	4.61											
1926	3.92	4.96											

[1] Figures for furnace coke from Bureau of Labor Statistics; foundry not reported.
[2] Government prices 1918.

Source: Iron Age.

Foreign Trade.

Exports of coke in 1926 amounted to 987,000 short tons, an increase of only about 3 per cent over the year before. (Table 32.) Approximately 95 per cent of these exports in both years went to Canada. Imports of coke were 285,000 short tons, or 41 per cent greater than in 1925.

MANUFACTURED GAS

Census Statistics of the Industry.

The manufacture of gas for illuminating and heating differs from other industries in that the product can be transported only by means of pipes. It is, therefore, usually distributed within a comparatively limited radius, although high-pressure distribution is tending to expand the former limits. Gas is being to a greater and greater extent superseded by electricity for lighting, but there has been no decline in gas production because of its increased use for cooking, heating, and industrial purposes. To determine the exact output of the manufactured-gas industry is difficult on account of the interrelations between this industry and the natural gas and coke industries. The Bureau of the Census classifies as engaged in the manufacture of gas only those establishments which make this their principal business.

Table 35.—Manufactured Gas—Summary of Census Statistics

Item	1909	1914	1919	1921	1923	1925
Number of establishments	1,296	1,284	1,022	954	939	919
Wage earners (average number)	37,215	43,792	42,908	34,956	42,282	46,998
Primary horsepower	128,350	213,303	238,454	(1)	358,605	428,132
Wages (thousands of dollars)	20,931	26,802	52,759	53,306	59,600	67,436
Cost of materials (thousands of dollars)	52,428	76,779	157,551	202,253	119,120	178,423
Value of all products (thousands of dollars)	166,814	220,238	329,279	411,196	450,097	455,460
Value added by manufacture (thousands of dollars)	114,387	143,459	171,728	208,942	258,977	277,037
Quantity of material used:						
Bituminous coal (thousand short tons)	[2] 4,941	[2] 6,117	6,194	5,707	6,238	6,871
Anthracite (thousand long tons)			1,307	1,130	983	619
Oil (thousand gallons)	578,309	715,419	881,673	841,771	874,234	891,589
Principal products:						
Gas, for sale (million cubic feet)	150,836	203,639	308,440	306,058	356,554	359,402
Coke, for sale (thousand short tons)	1,641	2,282	2,458	2,031	2,175	2,398
Tar, for sale (thousand gallons)	78,340	125,939	120,528	113,766	108,867	125,274
Value of gas for sale (thousands of dollars)	138,615	175,066	282,289	372,032	394,506	395,969

[1] Not called for in schedule for 1921.

[2] Thousand short tons.

Source: Bureau of the Census.

Census figures for the manufactured-gas industry in 1925 show that, although there has been a steady decrease since 1909 in the number of establishments, there has been an increase in the number of wage-earners, horsepower of prime movers, quantity of output, and all financial items. (Table 35.) In 1925, the value of all products of this industry was $455,460,000, of which the value of gas for sale represented 87 per cent, or $395,969,000. The value of by-products were in about the same proportion as in 1923. The apparent decline in the quantity of gas reported in 1921 as compared with 1919 is owing to a change in the classification of certain establishments which were no longer treated as engaged in the industry.

Production and Sales.

Statistics collected by the American Gas Association differ somewhat from those of the Bureau of the Census, chiefly because of the different method of classifying establishments. These figures show a steady increase in the quantity of gas sold each year since 1905. The quantity sold in 1926, 459,326,000,000 cubic feet, was 53 per cent greater than that sold in 1919, and an increase of 9 per cent over the sales in 1925. Companies engaged in the manufacture of gas also purchased large quantities of coke-oven and natural gas, which amounted to 17 per cent and 12 per cent, respectively, of the total gas produced and purchased in 1926.

Although this business is not subject to sharp fluctuations in demand, the requirements for industrial purposes, representing proably one-fourth of the total output, vary considerably with changes in business activity.

Table 36.—Production, Purchase, and Sale of Gas by Companies Engaged in the Manufactured-Gas Industry

[In millions of cubic feet]

Year	Total gas produced and purchased	Produced	Purchased		Gas sold
			Coke-oven gas	Natural gas	
1919	322, 300	271, 300	[1] 51, 000	------------	300, 000
1920	350, 232	300, 823	[1] 49, 409	------------	319, 888
1921	360, 392	295, 162	37, 393	27, 837	326, 950
1922	389, 000	300, 682	52, 883	35, 435	350, 000
1923	418, 000	313, 718	65, 872	38, 410	384, 722
1924	441, 381	324, 765	63, 350	53, 266	405, 200
1925	457, 100	324, 400	76, 600	56, 100	421, 400
1926	[2] 498, 184	([3])	([3])	([3])	[2] 459, 326

GAS SOLD, YEARS 1904–1918

Year	Amount	Year	Amount	Year	Amount
1904	113, 930	1909	143, 118	1914	198, 839
1905	112, 444	1910	149, 431	1915	204, 310
1906	122, 850	1911	159, 101	1916	231, 381
1907	132, 012	1912	178, 229	1917	264, 493
1908	138, 570	1913	188, 286	1918	271, 593

[1] Includes all other processes not segregated.
[2] Estimated.
[3] Quantity for 1926 not available.
Source: American Gas Association.

Prices.

Prices of manufactured gas are not subject to the law of supply and demand, since they are usually fixed by the terms of franchise agreements or by regulations of the public authorities. The prices to different consumers, however, vary according to the quantities taken or the purpose for which the gas is used, lower rates being made for industrial and heating purposes than for light. The Bureau of Labor Statistics collects data on the net price of manufactured gas in large cities, on the basis of which a general weighted average is computed. (Table 37.)

There has been a gradual decline in the average price of gas for household use since 1921. The average price as of December 15, 1926, was 8 per cent lower than that of May 15, 1921. As compared with 1913, however, the price level in 1926 was 28 per cent higher. The average price for all cities, December 15, 1926, was $1.22 per thousand cubic feet. For individual cities the prices ranged from 79 cents in Detroit and 80 cents in Birmingham to $2.10 in Butte. For the majority of cities the price was between $1 and $1.50 per thousand cubic feet.

Table 37. —Net Prices of Manufactured Gas for Household Use in Specified Cities

NOTE.—Prices based on a family consumption of 3,000 cubic feet per month.

[Per 1,000 cubic feet]

Date	Price	Date	Price	Date	Price
AVERAGE, ALL CITIES SPECIFIED		AVERAGE, ALL CITIES SPECIFIED—contd.		AVERAGE, ALL CITIES SPECIFIED—contd.	
Apr. 15, 1913	$0.95	Apr. 15, 1919	$1.04	Dec. 15, 1924	$1.24
Apr. 15, 1914	.94	Apr. 15, 1920	1.09	June 15, 1925	1.23
Apr. 15, 1915	.93	May 15, 1921	1.32	Dec. 15, 1925	1.23
Apr. 15, 1916	.92	Mar. 15, 1922	1.29	June 15, 1926	1.28
Apr. 15, 1917	.91	Mar. 15, 1923	1.25	Dec. 15, 1926	1.22
Apr. 15, 1918	.95	June 15, 1924	1.24		

PRICES AS OF DECEMBER 15, 1926

City	Price	City	Price	City	Price
Atlanta	$1.55	Manchester	$1.38	Portland, Oreg	$1.19
Baltimore	.85	Memphis	1.20	Providence	1.13
Birmingham	.80	Milwaukee	.82	Richmond	1.29
Boston	1.18	Minneapolis	.95	Rochester	1.00
Bridgeport	1.45	Mobile	1.80	St. Louis	1.00
Butte	2.10	Newark	1.20	St. Paul	.90
Charleston	1.55	New Haven	1.13	Salt Lake City	1.52
Chicago	1.02	New Orleans	1.30	San Francisco	.95
Cleveland	1.25	New York	1.23	Savannah	1.45
Denver	.95	Norfolk	1.33	Scranton	1.40
Detroit	.79	Omaha	1.08	Seattle	1.45
Fall River	1.15	Peoria	1.20	Springfield, Ill	1.25
Indianapolis	1.05	Philadelphia	1.00	Washington, D. C	1.00
Jacksonville	1.92	Portland, Me	1.42		

Source: Bureau of Labor Statistics, Department of Labor.

PETROLEUM AND REFINED PRODUCTS

SUMMARY.—Perhaps the outstanding feature of the petroleum industry in 1926 was the increase in domestic consumption of crude petroleum and in exports of refined products, which enabled the industry to absorb a 10,000,000-barrel increase in crude production and at the same time to withdraw substantial quantities from stocks. According to a preliminary estimate production amounted to 773,000,000 barrels, which was 1.2 per cent more than the record output of the previous year. In general the year was one of prosperity in the industry, overproduction of crude oil during the later months of the year being the one depressing feature.

Imports of crude petroleum fell off about 1,500,000 barrels, or 2 per cent. Runs to stills showed an increase of 6 per cent over 1925, while stocks were reduced 396,000,000 barrels at the end of the year, which was somewhat lower than in either 1924 or 1925.

The estimate of a total world production of 1,096,608,000 barrels indicated a 3 per cent increase over 1925. Toward this total, as in the three previous years, the United States contributed more than seven-tenths, and of the quantitative increase about two-fifths came from the United States. Crude production in some other countries also increased in 1926. Much potential production was opened up in areas of limited transportation facilities or markets, such as Colombia, Venezuela, Rumania, Russia, and Persia. The refining industry in foreign countries made some progress in 1926, although it is still inadequate to take care of the demand.

The production of all refined products was greater than in the preceding year, the percentage increases ranging from one-tenth of 1 per cent in the case of gas and fuel oil to 15.5 per cent in the case of gasoline. The percentage yields of gasoline continued to increase coincident with the installation of additional cracking equipment, and new production records were established with monotonous regularity. Exports of all refined products except lubricating oils increased.

The combination of relatively low crude production, increased consumption, and withdrawals from stock maintained prices at high levels during the first half of the year, but later prices declined on account of the inability of the industry to absorb the output of flush fields such as Seminole and the Panhandle.

Table 38.—Petroleum Summary

[Quantities in thousands of barrels of 42 gallons]

Item	1914	1921	1922	1923	1924	1925	1926 [1]	Per cent change 1925 to 1926
Crude oil:								
Production in the United States	265,763	472,183	557,531	732,407	713,940	763,743	[2] 766,504	[3] +1.2
Per cent of world total	65.2	61.7	64.9	71.9	70.4	71.5	[3] 70.4	----------
Imports	16,913	125,364	127,308	82,015	77,775	61,824	60,384	−2.3
Production:[4]								
Gasoline, naphtha, etc.	34,763	122,704	147,672	179,903	213,326	259,601	299,734	+15.5
Kerosene	46,078	46,313	54,913	55,927	60,026	59,689	61,768	+3.5
Gas and fuel oil	88,907	230,091	254,910	287,481	320,476	364,991	365,195	+0.1
Lubricating oil	12,329	20,896	23,304	26,128	27,498	31,055	32,293	+4.0
Exports, domestic:								
Crude oil	2,970	8,865	9,995	17,061	17,605	13,125	15,406	+17.4
Refined products, liquid[5]	48,716	57,534	59,592	77,872	93,387	93,843	108,177	+15.3
Weighted average price:								
Crude oil (wells), per barrel	$0.93	$1.86	$1.78	$1.71	$1.84	$1.96	$2.03	+3.6
Gasoline, per gallon	.130	.223	.217	.175	.159	.166	.175	+5.4
Kerosene, per gallon	.076	.129	.124	.128	.127	.123	.147	+19.5

[1] Preliminary.

[2] Not including petroleum consumed on leases and produced but not transported from producing properties. Estimated production, including these items, 773.000,000 barrels.

[3] Based on estimated total, 773,000.000 barrels.

[4] 1914 production, Bureau of the Census.

[5] Does not include fuel or bunker oil laden on vessels engaged in foreign trade.

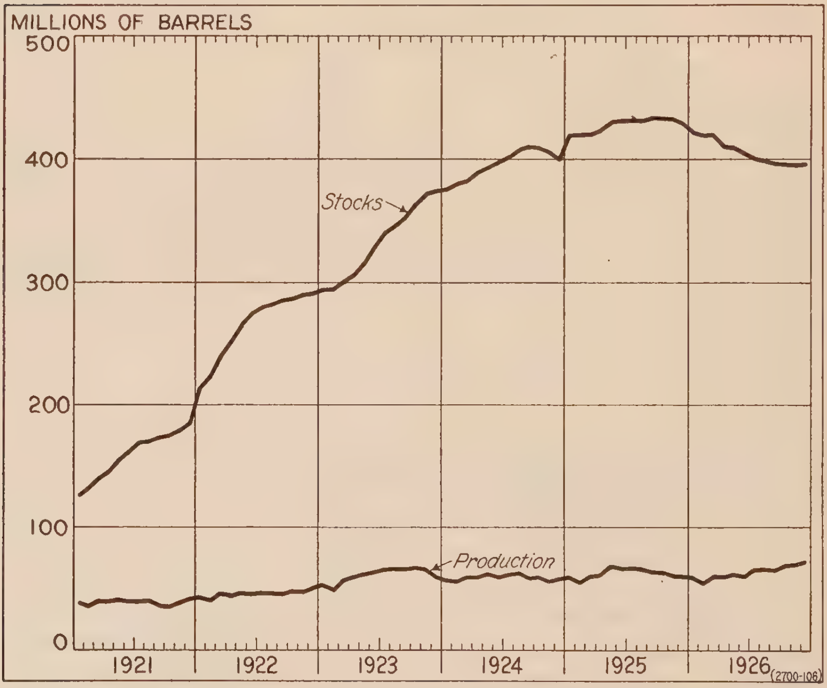
GENERAL POSITION AND CHARACTER

The petroleum industry includes the production and transportation of crude oil, the refining of the crude oil by fractional distillation and other processes into a variety of products, and an elaborate system of transporting and distributing these products. During 1926 there were 18,965 oil wells completed as compared with 16,559 in 1925, bringing the total number of producing wells to approximately 335,000. There were 90,000 miles of pipe-lines in the United States on May 1, 1926, with a cubic capacity of 15,750,000 barrels. On June 30, 1926, there were 384 tank vessels of 1,000 gross tons or over of American registry, with an aggregate gross tonnage of 2,319,314, used principally for mineral oil. During the year approximately 145,300 tank cars were used for transporting petroleum products. At the close of 1926 there were 465 completed refineries in the United

States with a daily crude-oil capacity of 3,061,000 barrels, as compared with 510 completed refineries of 2,853,000 barrels capacity the previous year.

Although the United States produces seven-tenths of the world output of crude petroleum considerable quantities are also imported to meet the ever-growing demand for exports of refined products and the increasing home consumption. Petroleum refining is one of the largest industries in value of products, but the manufacturing processes are relatively inexpensive and the cost of materials represents about four-fifths of the total value of output. (Table 44.)

Chart V.—**CRUDE PETROLEUM: PRODUCTION, IMPORTS, STOCKS, AND RUNS TO STILLS, BY MONTHS**



CRUDE PETROLEUM

Production was approximately 773,000,000 barrels, of which 766,500,000 barrels were transported from producing properties and the estimated balance of 6,500,000 barrels were burned as fuel or added to producers' storage. This constitutes a record production, being an increase over the previous high figures of 1925 of 1.2 per cent.

Imports of crude petroleum in 1926 amounted to 60,384,000 barrels, a slight decrease from 1925. Mexico showed a declining output, but continued the chief foreign source of supply. Imports from Venezuela and Colombia, where new fields have recently been developed, showed large increases over 1925.

Exports of crude petroleum, including foreign exports, in 1926, amounted to 15,407,000 barrels, most of which was consigned to Canada. This represents an increase over 1925 of 16 per cent. The export trade in crude petroleum remained much less important than our exports of refined oils.

Table 39.—Petroleum: Production, Exports, and Imports of Crude, and Exports of Refined Products

Period	Crude oil					Domestic exports of refined products
	Production	Value	Exports	Imports	Net retained supply	
	1,000 barrels	*1,000 dollars*	*1,000 barrels*	*1,000 barrels*	*1,000 barrels*	*1,000 barrels*
1871–1880	12, 519	19, 678	528	(1)	----------	6, 026
1881–1890	29, 249	23, 381	1, 719	(1)	----------	12, 084
1891–1895	51, 095	35, 708	2, 606	(1)	----------	16, 751
1896–1900	59, 498	56, 836	2, 907	(1)	----------	20, 240
1901–1905	102, 083	83, 524	3, 029	(1)	----------	22, 317
1906–1910	172, 769	119, 572	3, 686	(1)	----------	30, 521
1911–1915	247, 739	185, 793	4, 134	12, 080	255, 685	44, 475
1916–1920	362, 661	735, 698	5, 413	49, 531	406, 779	58, 896
1921–1925	647, 961	999, 186	[2] 13, 559	94, 857	729, 259	76, 465
1918	355, 928	703, 944	4, 901	37, 736	388, 763	59, 727
1919	378, 367	760, 266	[2] 6, 019	52, 822	425, 170	52, 641
1920	442, 929	1, 360, 745	[2] 8, 757	106, 175	540, 347	65, 278
1921	472, 183	814, 745	[2] 8, 940	125, 364	588, 607	57, 534
1922	557, 531	895, 111	[2] 10, 163	127, 308	674, 676	59, 592
1923	732, 407	978, 430	[2] 17, 385	82, 015	797, 037	77, 872
1924	713, 940	1, 022, 683	[2] 17, 973	77, 775	773, 742	93, 387
1925	763, 743	1, 284, 960	[2] 13, 335	61, 824	812, 232	93, 938
1926 [3]	766, 504	(4)	[2] 15, 407	60, 384	811, 481	108, 423

[1] Not reported separately.
[2] Includes foreign exports. For previous years data are for domestic exports.
[3] Preliminary, subject to revision. See also Note 2, Table 38.
[4] Not available.

Source: Bureau of Mines, Department of Commerce.

Production in 1926 was characterized by a steady increase in output. In general, the increases in production during the first half of the year resulted from the stimulating influence of increased consumption on development work in old fields; those of the last half of the year, from the discovery or development of new fields. The daily average production for December was 2,325,000 barrels, 21 per cent above that of January.

The mid-continent district, comprising the producing areas of Kansas, Oklahoma, and Arkansas and the inland fields of Louisiana and Texas, was again the dominant factor in the production of crude petroleum in the United States with an output of 422,590,000 barrels. The Appalachian area, which at one time was the center of production, but which is now unimportant in point of volume, registered an increase of 4 per cent in output under the stimulation of considerable drilling and the use of improved methods of recovery.

California, though it was unable to maintain the production rate of the previous three years, continued as the leading producing State, with 224,117,000 barrels, Oklahoma was second with 179,272,000 barrels, and Texas third, with 163,933,000 barrels. Of the two last-named States, Texas showed the greater gain over 1925 and led in output during the last half of the year.

Of the total production in 1926, 629,462,000 barrels, or 82 per cent, was light crude of 24° A. P. I. and above, and 137,042,000 barrels heavy crude of gravity below 24° A. P. I. In comparison with 1925 this indicates an increase in the proportion of light crude produced, which condition seems likely to continue as a result of developments at Seminole.

Chart VI.—**CRUDE PETROLEUM: PRODUCTION BY DISTRICTS**

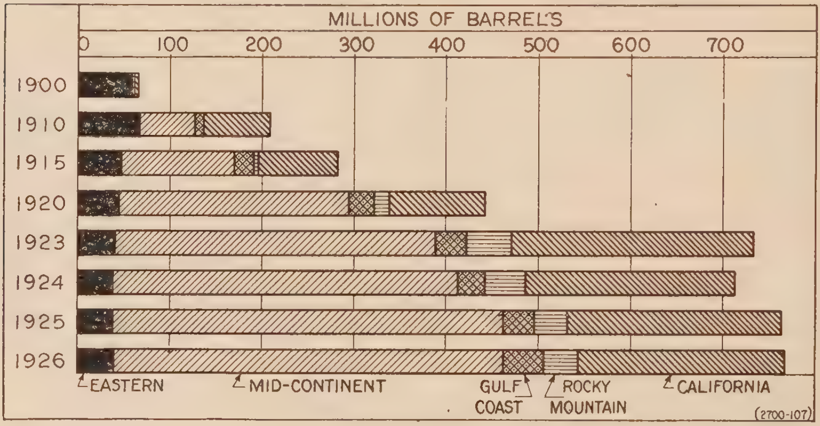


Table 40.—Production of Crude Petroleum, by Districts

District	Thousands of barrels of 42 U. S. gallons							
	1900	1910	1915	1920	1923	1924	1925	1926 [1]
Total	**63, 621**	**209, 557**	**281, 104**	**442, 929**	**732, 407**	**713, 940**	**763, 743**	**766, 504**
Eastern districts:								
Appalachian	36, 295	26, 893	22, 860	30. 630	28, 225	27, 056	27, 610	28, 617
Lima-Indiana	21, 759	7, 254	4, 269	2, 407	2, 404	2, 287	2, 120	2, 041
Illinois and southwest Indiana	---------	33, 143	19, 042	11, 427	9, 500	8, 747	8, 512	8, 420
Mid-continent	917	59, 217	123, 294	250, 111	348, 460	375, 479	424, 331	422, 590
Gulf coast	---------	9, 680	20, 579	27, 682	33, 271	28, 569	33, 112	44, 074
Rocky Mountain	323	355	4, 454	17, 282	47, 653	[2] 42, 869	35, 554	36, 547
California	4, 325	73, 011	86, 592	103, 377	262, 876	228, 933	232, 492	224, 117
Other	2	4	14	13	18	---------	[3] 12	[4] 98

[1] Preliminary, subject to revision. See also note 2, Table 38.

[2] Including Alaska and Utah.

[3] Michigan and Alaska.

[4] Michigan.

Source: Bureau of Mines, Department of Commerce.

Table 41.—Crude Petroleum Production [1] and Runs to Stills, by Months

[Thousands of barrels]

Period	Total production [2]	District							Runs to stills
		Appalachian	Lima-Indiana	Illinois and southwest Indiana	Mid-continent	Gulf coast	Rocky Mountain [3]	California	
1925									
January	59, 519	2, 183	166	718	33, 066	2, 013	2, 630	18, 743	57, 480
February	54, 045	2, 082	165	656	29, 913	1, 857	2, 502	16, 870	53. 121
March	60, 433	2, 322	183	778	32, 962	2, 645	2, 917	18, 626	59, 552
April	61, 431	2, 327	190	642	34, 726	2, 716	2, 870	17, 960	59, 310
May	68, 082	2, 268	183	715	40, 156	3, 082	2, 858	18, 820	62, 379
June	66, 675	2, 350	198	722	38, 515	2, 810	2, 792	19, 288	64, 913
July	67, 318	2, 389	193	748	37, 565	2, 980	3, 032	20, 411	67, 575
August	66, 887	2, 299	182	696	36, 775	2. 761	3, 168	21, 006	67, 016
September	64, 708	2, 312	179	721	35, 494	2, 748	3, 191	20, 063	62, 115
October	64, 352	2, 344	173	731	35, 071	2, 767	3, 251	20, 015	63, 970
November	61, 459	2, 153	152	687	33, 685	2, 544	3, 142	19, 096	60, 310
December	60, 943	2, 241	157	689	33, 038	2, 535	3, 033	19, 250	62, 179
1926									
January	59, 672	2, 168	157	689	31, 799	2, 734	3, 053	19, 070	61, 352
February	54. 566	2, 118	158	655	28, 960	2, 592	2, 917	17, 164	56, 575
March	60, 671	2, 391	179	779	32, 460	2, 663	3, 371	18, 826	63, 000
April	59, 992	2, 379	171	633	32, 874	2, 665	3, 174	18, 092	61, 786
May	62, 556	2, 359	178	707	34, 667	2, 707	3, 267	18, 667	65, 633
June	61, 742	2, 449	195	718	34, 310	2, 536	3, 262	18, 269	65, 092
July	64, 893	2, 497	185	737	35, 824	3, 546	3, 356	18, 743	67, 624
August	66, 525	2, 466	177	724	36, 459	4, 773	3, 154	18, 765	67, 861
September	65, 300	2, 461	171	712	36, 080	4, 815	2, 948	18, 105	66, 684
October	69, 043	2, 491	168	704	39, 040	4, 788	2, 871	18. 966	69. 199
November	69, 483	2, 386	146	672	39, 433	4, 992	2, 661	19, 173	67. 935
December	72, 061	2, 452	156	690	40, 684	5, 263	2, 513	20, 277	69, 820

[1] Not including petroleum consumed on leases, and produced but not transported from producing properties.

[2] Including in 1926 small quantities each month produced in Michigan.

[3] Including Alaska and Utah.

Source: Bureau of Mines, Department of Commerce.

The consumption of crude petroleum in 1926, as measured by runs to stills of both domestic and foreign crude, amounted to 782,561,000 barrels, an increase over 1925 of 5.8 per cent. Of this amount, 737,598,000 barrels, or 94 per cent, were of domestic origin and 44,963,000 barrels were of foreign origin. No figures are yet available of the amounts of crude petroleum burned in the raw state in 1926, though it seems certain that the total was smaller than for several years past.

Stocks of crude petroleum in the United States as indicated in Table 43 declined throughout most of the year 1926. Total stocks of crude petroleum east of California on December 31, 1926, were 278,077,000 barrels as compared with 299,369,000 barrels at the beginning of the year. Stocks of crude petroleum and fuel oil in California declined 11,303,000 barrels for the year owing primarily to a disastrous fire in April.

Table 42.—Indicated Consumption of Crude Petroleum

NOTE.—Consumption is calculated from production, stocks, export and import figures and represents not that of finished products by final consumers but of crude oil by refiners and oil used for road and other purposes.

[Thousands of barrels]

Year	Production	Imports less reexports	Domestic exports	Change in stocks end of year	Indicated consumption	Oil run to stills
1915	281,104	18,139	3,768	+4,704	290,771	----------
1916	300,767	20,797	4.096	−16.972	334.440	246,992
1917	335,316	30,127	4,098	+10,760	350.585	315,132
1918	355,928	37,736	4,901	−23,510	412,273	326,025
1919	378,367	52,727	5,924	+4,708	420,462	361,520
1920	442,929	105,462	8,045	+17,933	522,413	433,915
1921	472.183	125,290	8,866	+67,876	520,731	443.363
1922	557,531	127,141	9,995	+78.384	596,293	500.706
1923	732.407	80,500	17,061	+82.175	713,671	581,238
1924	713.940	77,407	17,605	[1] +39,713	734,029	643,719
1925	763.743	61,614	13,125	+11,207	801,025	739,920
1926	[2] 766.504	60.383	15,405	−32,595	844,077	782,561

[1] See note 6, Table 43.

[2] See note 2, Table 38.

Source: Bureau of Mines, Department of Commerce.

Table 43.—Stocks of Crude Petroleum as of December 31 [1]

[Thousands of barrels of 42 U. S. gallons]

Stocks	1920	1921	1922	1923	1924	1925	1926
Pipe-line and tank-farm net stocks, by district of origin:							
Appalachian	3,427	6,838	8,868	9,210	9,286	8,493	7,791
Lima-Indiana	1,038	1,014	685	975	1,221	971	666
Illinois and southwestern Indiana	2,965	7,567	10,140	11,091	10,870	10,582	11,770
Mid-continent	75,690	102,401	152,573	202,904	210,558	195,941	173,693
Gulf coast	11,163	17,606	24,781	23,974	20,200	19,263	20,031
Rocky Mountain	636	1,635	1,991	19,704	28,672	28,995	28,042
Producers' stocks [2]	3,586	5,139	8,428	9,850	8,389	7,560	(3)
Refiners' stocks:							
Domestic	21,261	26,562	22,558	29,756	27,890	22,969	32,251
Foreign [4]	----------	----------	11,247	3,503	3,294	4,188	3,224
Importers' stocks (foreign)	[4] 7,442	[4] 13,540	5,062	4,754	734	407	609
Total stocks east of California	127,208	182,302	246,333	315,721	321,114	299,369	278,077
California (gross stocks) [5]	22,240	35,022	49,375	62,162	[6] 96,482	[6] 129,434	[6] 118,131
Grand total	149,448	217,324	295,708	377,883	417,596	428,803	396,208

[1] Reported by revised method.

[2] Exclusive of producers' stocks in California.

[3] Not available.

[4] Refiners' stocks of foreign crude oil included in importers' stocks prior to 1922.

[5] Including producers', pipe-line, and tank-farm (but not refinery) stocks of crude oil, residuum, and tops.

[6] Including fuel oil to the amount of 26,669,000 barrels in 1924, and to an indeterminable amount in 1925, and 1926.

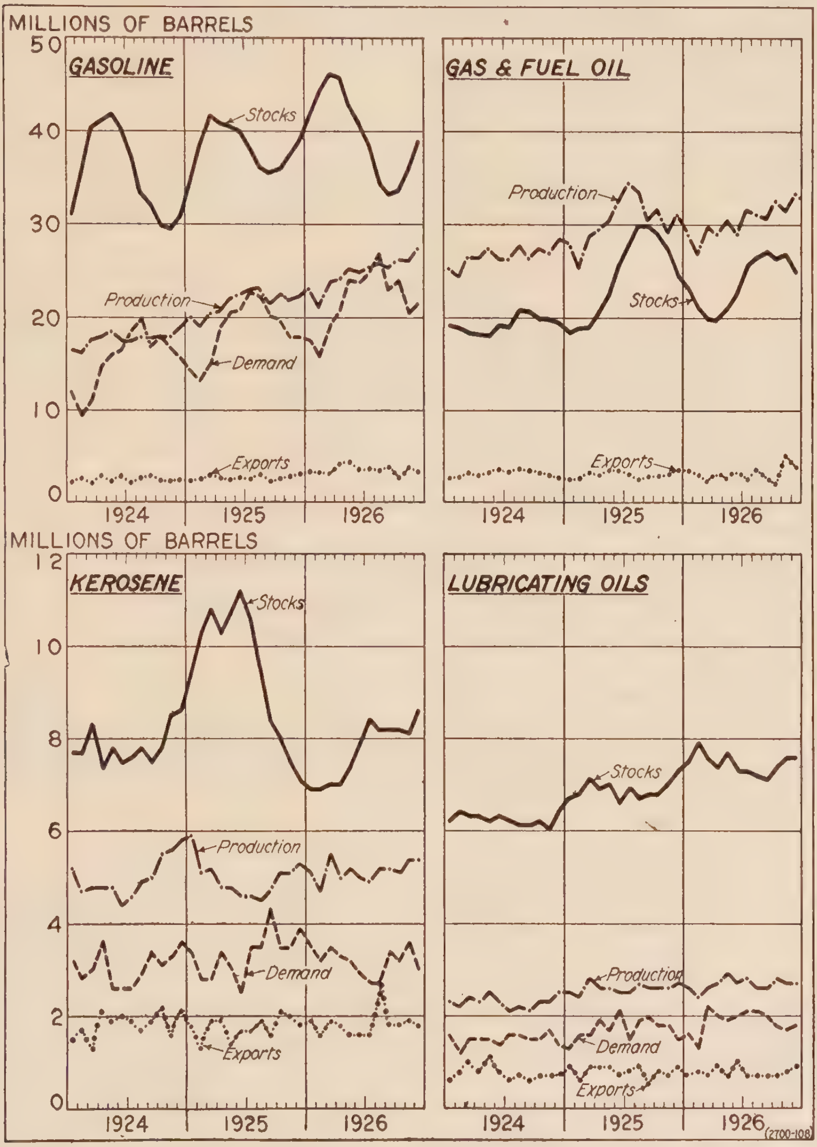
Source: Bureau of Mines, Department of Commerce.

REFINED PRODUCTS

The value of the output of the refining industry in 1925, as reported by the Bureau of the Census and shown in Table 44, amounted to $2,373,178,000, as compared with $1,793,000,000 in 1923. This was an increase of 32 per cent. Of the total value of products the cost of materials represented about four-fifths as in previous years. Almost 23 per cent more crude oil was consumed by the industry in 1925 than in 1923.

The refineries in 1926 treated a total of 824,869,000 barrels of oil of all kinds, including rerun partly finished products. Of this amount 737,598,000 barrels represented domestic crude oil, and 44,963,000 barrels imported crude oil.

Chart VII.—PRINCIPAL PETROLEUM PRODUCTS: PRODUCTION, EXPORTS, STOCKS, AND DOMESTIC DEMAND, BY MONTHS



Gasoline continued to be the most important refinery product and every effort was made in 1926 to increase its yield from crude petroleum run to stills. The percentage recovery of gasoline as a result rose from 35.1 per cent in 1925 to 38.3 per cent in 1926. (Table 45.)

This increase in yield was owing to several factors, chief of which were greater use of the cracking process, the more widespread use of natural-gas gasoline, and improvements in refinery practice. In 1926, 31.3 per cent of the total output of gasoline was produced by cracking as compared with 26.4 per cent in 1925.

The percentage yields of the three refinery products next in importance to gasoline—kerosene, gas oil and fuel oil, and lubricants—all declined somewhat in 1926, the total decrease about counterbalancing the increase in gasoline.

Table 44.—Petroleum Refining Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture	Crude oil consumed
				1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 barrels*
1899	67	12, 199	36, 127	6, 717	102, 859	123, 929	21, 070	52, 011
1909	147	13, 929	89, 983	9, 830	199, 273	236, 998	37, 724	120, 775
1914	176	25, 366	128, 190	19, 397	325, 265	396, 361	71, 097	191, 263
1919	320	58, 889	238, 906	89, 750	1, 247, 908	1, 632, 533	384, 624	365, 272
1921 [1]	366	63, 189	(2)	102, 294	1, 382, 170	1, 727, 440	345, 270	(3)
1923 [1]	382	66, 717	391, 154	103, 834	1, 425, 053	1, 793, 700	368, 647	601, 748
1925 [1]	358	65, 218	406, 101	104, 485	1, 886, 603	2, 373, 178	486, 575	737, 564

[1] The figures for 1921, 1923, and 1925 do not include establishments reporting products under $5,000 in value.

[2] Not called for in schedule for 1921.

[3] No exact data; estimated at 485,500,000 barrels of crude oil and partially run distillates.

Source: Bureau of the Census.

Table 45.—Percentage Yield of Major Refined Products from Crude Oil Run to Stills

Product	All regions								
	1916	1918	1920	1921	1922	1923	1924	1925	1926
Gasoline	19. 8	26. 1	26. 8	27. 7	29. 5	30. 9	33. 1	35. 1	38. 3
Kerosene	14. 0	13. 3	12. 7	10. 4	11. 0	9. 6	9. 3	8. 1	7. 9
Gas and fuel oil	45. 0	53. 5	48. 6	51. 9	50. 9	49. 5	49. 8	49. 3	46. 7
Lubricants	6. 0	6. 1	5. 7	4. 7	4. 7	4. 5	4. 3	4. 2	4. 1

Product	Refinery districts											
	East Coast			Appalachian			Indiana, Illinois, etc.			Oklahoma, Kansas, etc.		
	1916	1921	1926	1916	1921	1926	1916	1921	1926	1916	1921	1926
Gasoline	20. 7	25. 1	35. 3	21. 1	32. 6	42. 9	34. 3	45. 3	57. 6	32. 5	36. 0	52. 8
Kerosene	22. 4	11. 1	9. 4	27. 3	19. 1	14. 8	14. 8	10. 4	7. 1	19. 4	11. 4	9. 2
Gas and fuel oil	30. 2	54. 1	45. 9	18. 0	23. 4	23. 8	26. 1	27. 7	27. 8	54. 2	45. 0	34. 2
Lubricants	12. 6	6. 5	7. 3	23. 5	18. 3	16. 8	8. 9	5. 9	4. 7	1. 2	2. 4	2. 6
	Texas			Louisiana and Arkansas			Rocky Mountain			California		
Gasoline	[1] 10. 9	25. 3	40. 1	(1)	25. 0	29. 9	31. 9	52. 2	51. 0	11. 7	14. 3	24. 9
Kerosene	[1] 8. 9	12. 3	10. 1	(1)	11. 8	9. 4	16. 4	10. 7	7. 2	4. 9	4. 5	3. 4
Gas and fuel oil	[1] 42. 0	55. 7	41. 5	(1)	48. 5	48. 4	53. 4	44. 3	27. 9	67. 2	70. 3	69. 1
Lubricants	[1] 2. 3	5. 2	5. 2	(1)	1. 2	1. 2	. 7	2. 0	2. 2	1. 6	2. 2	1. 3

[1] Louisiana included with Texas in 1916.

Source: Bureau of Mines, Department of Commerce.

Gasoline production for the year 1926 at refineries in the United States was 299,734,000 barrels, an increase over 1925 of 15.5 per cent. The indicated domestic demand for gasoline in 1926 totaled 262,165,000 barrels, which was 17 per cent more than in 1925. Domestic demand reached its high point in August, which was the only month in which it exceeded production. The tendency of recent years to prolong the motoring season into the cooler months was very pronounced in 1926, and was reflected in large consumption of gasoline throughout the year.

Stocks of gasoline reflected the healthier tone in the industry, as additions to storage were small. Gasoline stocks on hand at refineries December 31, 1926, amounted to 39,023,000 barrels, which was only slightly above the stocks of the preceding year, 38,875,000 barrels.

Table 46.—Refined Petroleum Products: Production, Imports, Exports, Stocks, and Domestic Demand

NOTE.—Data on oil run to stills are shown in Table 42. For monthly figures see Table 41.

[Thousands of barrels]

Period	Gasoline					Gas and fuel oil				
	Production	Imports [1]	Exports [2]	Stocks, end of period	Domestic demand [3]	Production	Imports [1]	Exports [2]	Stocks, end of period [4]	Domestic demand [3]
1919	94, 235	203	9, 097	10, 638	81, 783	181, 602	--------	16, 487	17, 003	163, 803
1920	116, 251	964	15, 636	11, 009	101, 208	210, 987	--------	22, 080	19, 938	185, 972
1921	122, 704	900	13, 134	13, 954	107, 525	230, 091	--------	22, 676	31, 697	195, 656
1922	147, 672	1, 479	14, 156	21, 043	127, 906	254, 910	2, 947	18, 479	31, 065	240, 010
1923	179, 903	4, 555	20, 741	28, 014	156, 746	287, 481	12, 286	33, 372	36, 072	261, 388
1924	213, 326	3, 453	28, 967	30, 823	185, 003	320, 476	12, 927	37, 249	39, 774	292, 452
1925	259, 601	3, 813	31, 497	38, 875	223, 865	364, 991	12, 245	36, 088	24, 681	(5)
1926	299, 734	6, 052	43, 473	39, 023	262, 165	365, 195	14, 430	38, 351	24, 898	(5)
Per cent change from 1925	+15. 5	+58. 7	+38. 0	+0. 4	+17. 1	+0. 1	+17. 8	+6. 3	+0. 9	--------
1926										
January–March	68, 335	1, 309	9, 700	46, 121	52, 698	85, 899	3, 395	9, 147	20, 037	(5)
April–June	74, 513	1, 539	12, 530	40, 779	68, 864	88, 539	4, 372	9, 580	22, 554	(5)
July–September	76, 806	1, 392	11, 127	33, 257	74, 593	93, 313	3, 931	8, 759	27, 151	(5)
October–December	80, 080	1, 812	10, 116	39, 023	66, 010	97, 444	2, 732	10, 865	24, 898	(5)
	Kerosene					Lubricants				
1919	55, 753	--------	23, 536	8, 079	33, 188	20, 161	--------	6, 598	3, 269	13, 600
1920	55, 240	--------	20, 878	9, 359	33, 082	24, 938	--------	9, 643	3, 822	14, 742
1921	46, 313	--------	18, 016	8, 119	29, 537	20, 896	--------	6, 936	5, 735	12, 047
1922	54, 913	3	21, 489	6, 692	34, 854	23, 304	43	7, 941	5, 613	15, 528
1923	55, 927	7	20, 347	7, 231	35, 048	26, 128	29	8, 372	6, 138	17, 260
1924	60, 026	10	21, 961	8, 594	36, 712	27, 498	11	11, 988	6, 420	18, 124
1925	59, 689	19	21, 212	7, 121	39, 969	31, 055	37	9, 678	7, 253	20, 581
1926	61, 768	75	22, 060	8, 575	38, 329	32, 293	33	9, 438	7, 576	22, 565
Per cent change from 1925	+3. 5	+294. 7	+4. 0	+20. 4	−4. 1	+4. 0	−10. 8	−2. 5	+4. 5	+9. 6
1926										
January–March	15, 384	2	5, 324	7, 004	10, 179	7, 742	7	2, 256	7, 640	5, 106
April–June	15, 256	8	4, 984	7, 881	9, 403	8, 236	17	2, 629	7, 314	5, 950
July–September	15, 246	62	6, 144	8, 162	8, 883	8, 124	5	2, 112	7, 149	6, 182
October–December	15, 882	3	5, 608	8, 575	9, 864	8, 191	4	2, 441	7, 576	5, 327

[1] Data except for gasoline not available prior to October, 1922.
[2] Including shipments to Alaska, Hawaii, and Porto Rico.
[3] Indicated deliveries by refineries for United States consumption.
[4] East of California only, for gas and fuel oil.
[5] Not available.

Source: Bureau of Mines, Department of Commerce.

Table 47.—Production of Refined Petroleum Products, by Months

[Thousands of barrels]

Month	Gasoline						Gas and fuel oil					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	10,963	10,586	14,850	16,555	20,043	23,208	19,921	20,431	23,557	25,307	28,000	28,981
February	9,243	9,481	13,539	16,279	19,182	21,259	17,441	18,121	21,490	24,417	25,355	27,094
March	9,995	11,245	15,017	17,696	20,631	23,868	18,056	20,217	23,116	26,534	28,825	29,824
April	10,148	11,260	14,739	17,971	20,752	24,296	19,368	18,849	23,256	26,589	29,453	29,029
May	10,680	12,230	15,041	18,552	21,996	25,271	19,461	22,303	23,004	27,522	30,441	30,380
June	10,246	12,522	15,160	17,550	22,488	24,946	19,675	21,501	23,116	26,350	32,519	29,130
July	9,991	13,565	15,165	17,666	23,073	25,504	19,224	22,834	25,077	26,257	34,495	31,461
August	10,276	13,094	15,451	17,995	23,191	25,942	18,677	22,483	24,063	27,791	33,502	31,154
September	9,927	12,774	14,851	17,864	21,573	25,360	18,772	21,854	24,586	26,521	30,579	30,698
October	10,499	13,483	15,692	18,111	22,488	26,337	19,852	21,943	25,471	27,635	31,559	32,444
November	10,283	13,502	14,704	18,144	21,946	26,245	19,030	21,228	25,189	27,003	29,306	31,624
December	10,453	13,930	15,694	18,943	22,238	27,498	20,614	23,146	25,556	28,550	30,957	33,376
	Kerosene						Lubricants					
January	4,890	4,117	5,058	5,185	5,897	5,122	2,045	1,769	2,073	2,251	2,467	2,648
February	3,883	3,981	4,295	4,686	5,101	4,746	1,725	1,646	1,845	2,234	2,401	2,448
March	4,030	4,257	4,540	4,763	5,228	5,516	1,733	1,747	2,161	2,408	2,831	2,646
April	3,718	4,495	4,332	4,838	4,774	5,037	1,820	1,737	2,159	2,309	2,559	2,692
May	3,458	4,139	4,504	4,762	4,810	5,210	1,667	1,901	2,509	2,486	2,609	2,863
June	3,372	4,135	4,264	4,360	4,600	5,009	1,502	1,908	2,279	2,309	2,500	2,681
July	3,303	4,593	4,482	4,624	4,592	4,877	1,569	2,184	2,237	2,083	2,499	2,831
August	3,420	4,390	4,434	4,860	4,465	5,162	1,583	2,115	2,078	2,209	2,675	2,648
September	3,667	4,713	4,612	5,043	4,710	5,207	1,644	1,954	2,076	2,148	2,565	2,645
October	4,344	5,124	4,556	5,540	5,121	5,126	1,809	2,080	2,095	2,315	2,608	2,768
November	4,173	5,582	5,257	5,560	5,064	5,357	1,833	2,125	2,289	2,261	2,630	2,724
December	4,055	5,387	5,593	5,805	5,327	5,399	1,966	2,138	2,327	2,485	2,711	2,699

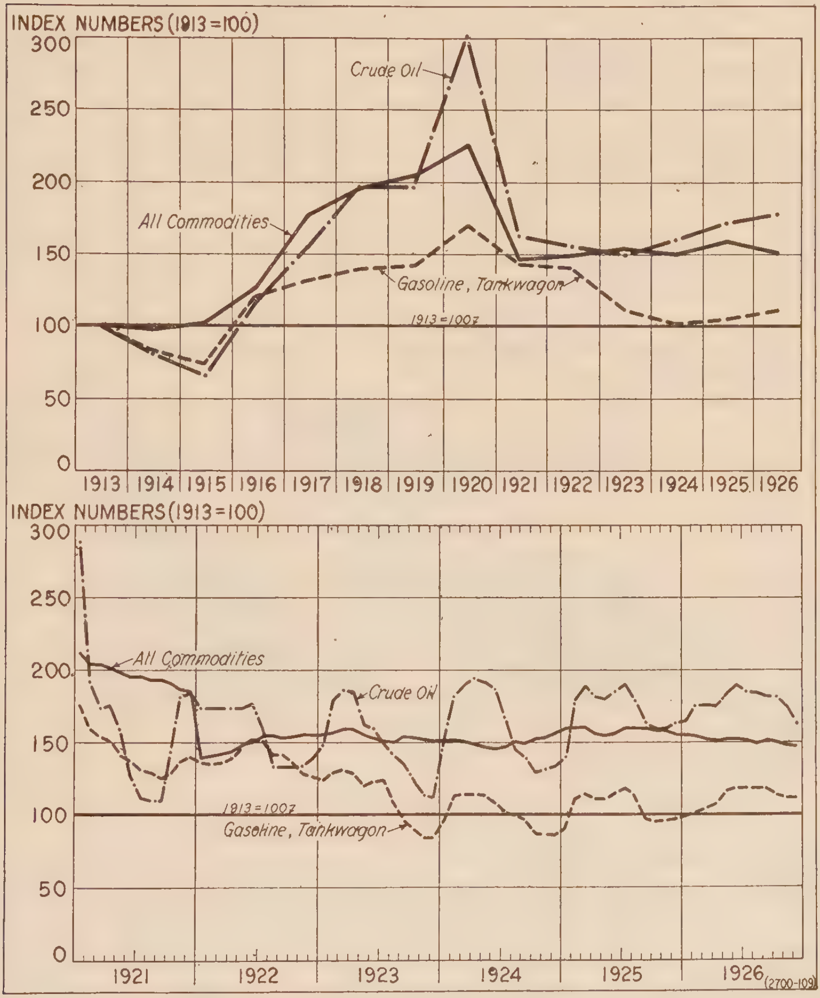
Source: Bureau of Mines, Department of Commerce.

PRICES AND MARKETS

Prices of mineral oils in 1926 were higher than for several years past. The average price of crude oil was $2.03 per barrel, the highest for any year since 1920. The crude oil price was at its highest level in June when it averaged $2.15; it declined steadily during the remainder of the year and reached about the same price as in the previous January. The average prices per gallon of gasoline and kerosene for 1926 were 17.5 cents and 14.7 cents, respectively, an increase of 5 per cent and 11 per cent over 1925. Both of these commodities attained their maximum prices in the summer months. The price of fuel oil was very steady throughout the year, a reflection of the stabilizing influence exerted by its demand for cracking. The price of lubricating oil declined steadily throughout the year.

Although the demand for gasoline has increased more than that for other petroleum products, the price advance over pre-war levels has been less in the case of gasoline. As compared with 1913 the average price of crude oil at the wells in 1926 had increased 78 per cent, the price of kerosene 87 per cent, of fuel oil 38 per cent, and of lubricants 70 per cent, while the increase in the price of gasoline was only 12 per cent. This has been largely the result of the new cracking process for the recovery of gasoline which has been employed to a greater extent during recent years.

Chart VIII.—INDEX NUMBERS OF PRICES OF CRUDE PETROLEUM AND GASOLINE



Prices of gasoline were as usual stimulated by seasonal demand in the summer months and continued strong until the end of the year, the December price being 13 per cent higher than that of January.

Table 48.—Mineral Oil Prices in the United States

[These prices calculated by Joseph E. Pogue, of New York, are based on similar compilations by Pogue and Lubin in "History of Prices During the War," published by the War Industries Board. The weighted average prices were calculated from weekly quotations in trade journals, crude prices (at wells) covering five principal grades from different fields; gasoline and kerosene prices from tank wagon at five principal cities; fuel-oil prices ex-refinery for five refinery locations; and lubricating oil jobbing quotations for five different grades]

Year	Average prices					Relative prices (1913 average=100)				
	Crude oil (barrel)	Gasoline (gallon)	Kerosene (gallon)	Fuel oil (barrel)	Lubricating oil (gallon)	Crude oil	Gasoline	Kerosene	Fuel oil	Lubricating oil
1913	$1.14	$0.156	$0.079	$1.06	$0.154	100	100	100	100	100
1919	2.25	.222	.127	1.59	.322	197	142	162	149	209
1920	3.44	.265	.171	2.79	.490	302	170	217	262	318
1921	1.86	.223	.129	1.30	.276	163	143	164	122	179
1922	1.78	.217	.124	1.24	.204	156	140	158	117	132
1923	1.71	.175	.128	1.20	.194	150	112	163	113	125
1924	1.84	.159	.127	1.35	.230	161	102	162	127	149
1925	1.96	.166	.123	1.46	.261	172	106	156	137	170
1926	2.03	.175	.147	1.47	.261	178	112	187	138	170

Table 49.—Average Mineral Oil Prices, by Months

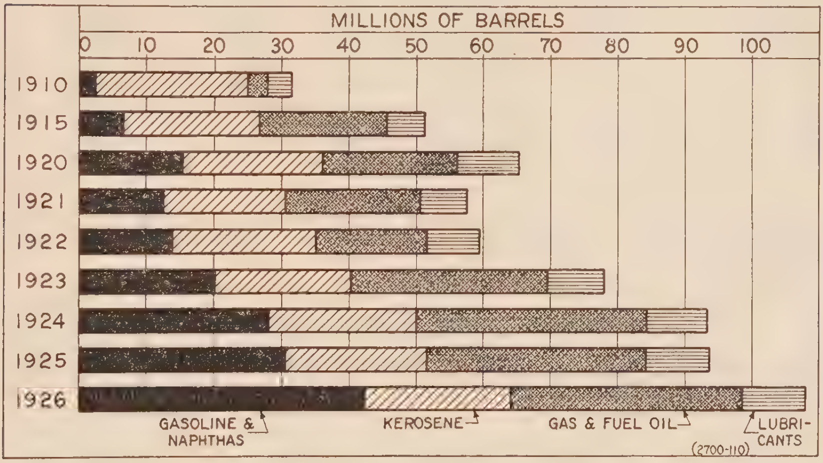
NOTE.—See headnote to Table 48.

Month	Crude oil (barrel)	Gasoline (gallon)	Kerosene (gallon)	Fuel oil (barrel)	Lubricating oil (gallon)	Crude oil (barrel)	Gasoline (gallon)	Kerosene (gallon)	Fuel oil (barrel)	Lubricating oil (gallon)
	Average price, 1923					Average price, 1924				
January	$1.69	$0.193	$0.132	$1.26	$0.205	$1.72	$0.152	$0.129	$1.32	$0.211
February	2.04	.201	.131	1.34	.221	2.08	.177	.134	1.53	.240
March	2.13	.206	.131	1.36	.235	2.16	.180	.135	1.46	.243
April	2.11	.199	.129	1.32	.237	2.21	.180	.135	1.35	.250
May	1.86	.189	.128	1.22	.205	2.19	.178	.131	1.29	.242
June	1.82	.195	.128	1.17	.195	2.13	.169	.130	1.25	.232
July	1.70	.194	.128	1.13	.178	1.89	.159	.127	1.24	.220
August	1.60	.172	.128	1.14	.169	1.67	.154	.124	1.22	.213
September	1.54	.151	.128	1.14	.165	1.57	.151	.122	1.30	.218
October	1.40	.142	.123	1.13	.165	1.47	.136	.122	1.33	.225
November	1.29	.131	.125	1.09	.170	1.50	.134	.122	1.36	.226
December	1.28	.131	.126	1.09	.183	1.52	.134	.122	1.51	.243
	Average price, 1925					Average price, 1926				
January	$1.59	$0.141	$0.122	$1.59	$0.249	$1.88	$0.154	$0.126	$1.46	$0.281
February	2.05	.175	.124	1.69	.271	2.01	.159	.133	1.40	.282
March	2.15	.180	.126	1.63	.269	2.01	.164	.139	1.44	.276
April	2.07	.175	.126	1.46	.260	2.00	.169	.140	1.51	.267
May	2.05	.174	.126	1.35	.259	2.09	.182	.155	1.50	.263
June	2.11	.181	.126	1.41	.273	2.15	.186	.158	1.44	.263
July	2.16	.184	.126	1.40	.273	2.11	.186	.150	1.42	.261
August	2.03	.177	.125	1.41	.260	2.10	.186	.154	1.50	.255
September	1.87	.151	.119	1.33	.250	2.07	.186	.162	1.53	.248
October	1.81	.148	.114	1.31	.252	2.07	.178	.153	1.48	.248
November	1.81	.150	.119	1.37	.254	1.99	.174	.149	1.50	.246
December	1.87	.152	.125	1.52	.266	1.86	.174	.143	1.48	.243

FOREIGN TRADE

The history of the export trade in petroleum and petroleum products has been one of almost uninterrupted progress since the beginning of the present century. In 1913 the total domestic exports of crude oil and refined liquid products combined was more than double what it had been in 1900. In 1918 exports were almost three times as great as at the beginning of the century, and 27 per cent greater than in 1913. The unnatural stimulus given this trade by the war resulted in considerable instability in the years 1919 and 1920, but in 1921 equilibrium was again attained at a level slightly above that of 1918, and since that time there has been a continuous growth except for a slight decline in 1925. Total domestic exports of crude and refined liquid products in 1926 amounted to 123,829,000 barrels which was five times as much as in 1900, and 86 per cent more than in 1921. Average export prices for refined liquid products rose to unprecedented levels during the war, and attained even higher levels in 1919 and 1920, but from that year until 1923 and 1924 there was a decline of 47 per cent in these prices. During the past two years the up-trend has again appeared. Exports of crude oil have always been relatively small and have represented between 10 and 20 per cent of quantitative exports of liquid products, except during war years when the ratio was less than 10 per cent.

Chart IX.—DOMESTIC EXPORTS OF PRINCIPAL PETROLEUM PRODUCTS



The export trade in mineral oils during 1926 again increased in both quantity and value. The total quantity of refined liquid products exported amounted to 108,423,000 barrels, valued at $497,482,000, of which domestic exports represented 108,177,000 barrels, valued at $496,400,000. The latter represents an increase over 1925 of 15.3 per cent in quantity and 17.5 per cent in value. Gasoline showed the most notable gain amounting to 39 per cent in quantity of exports. Exports of gas oil and fuel oil increased somewhat but the kerosene trade again showed little change from that of the previous year and exports of lubricating oils actually declined. There was practically no change in exports of any of the solid petroleum products.

Table 50.—Domestic Exports of Petroleum and its Products

Year	Quantity (thousands of barrels)			Value (millions and tenths of millions of dollars)				
				Grand total				
	Total [1]	Crude oil	Refined liquid products [2]	Amount [3]	Per cent of total exports	Crude oil	All refined products [3]	Refined liquid products [2]
1900	23, 497	3, 290	19, 737	82. 8	5. 69	7. 3	75. 4	66. 3
1905	29, 060	3, 004	24, 371	87. 5	5. 47	6. 1	81. 5	71. 4
1910	35, 774	4, 288	28, 685	101. 4	5. 54	5. 4	96. 0	85. 0
1911	42, 113	4, 806	34, 117	112. 9	5. 48	6. 2	106. 8	95. 9
1912	44, 845	4, 493	37, 850	136. 1	5. 76	6. 8	129. 3	115. 0
1913	50, 871	4, 630	44, 622	159. 9	6. 53	8. 4	151. 5	139. 7
1914	53, 334	2, 970	48, 716	148. 4	7. 17	5. 0	143. 4	133. 7
1915	55, 446	3, 768	51, 377	158. 7	4. 54	4. 3	154. 5	138. 3
1916	62, 083	4, 096	57, 831	220. 0	4. 06	7. 0	213. 0	194. 5
1917	63, 122	4, 098	58, 999	273. 9	4. 44	7. 7	266. 2	245. 2
1918	64, 629	4, 901	59, 723	369. 6	6. 11	12. 1	357. 5	332. 2
1919	59, 351	5, 924	52, 641	374. 5	4. 83	14. 8	359. 7	327. 0
1920	73, 325	8, 045	65, 278	589. 3	7. 29	29. 0	560. 3	519. 3
1921	66, 618	8, 865	57, 534	399. 8	9. 13	20. 2	379. 6	363. 5
1922	69, 828	9, 995	59, 592	344. 2	9. 14	18. 3	325. 9	312. 6
1923	94, 967	17, 061	77, 872	365. 3	8. 93	23. 1	342. 2	326. 6
1924	111, 082	17, 605	93, 411	442. 5	9. 83	26. 5	416. 0	392. 3
1925	107, 063	13, 125	93, 843	473. 0	9. 82	24. 3	448. 7	422. 6
1926	123, 829	15, 406	108, 177	554. 2	11. 76	28. 5	525. 7	496. 4

[1] Including residuum.

[2] Not including residuum. Including mineral spirits since 1924.

[3] Including paraffin wax since 1900, lubricating grease since 1912, petroleum asphalt since 1925, and petroleum coke in 1926.

Source: Bureau of Foreign and Domestic Commerce.

Table 51.—Domestic Exports of Principal Petroleum Products

NOTE.—Quantities in thousands of barrels for liquid products; solid products in millions of pounds; values in thousands of dollars. The difference between the total values in this table and the values of all refined products in Table 50 are due to the inclusion of petroleum jelly and the omission of petroleum asphalt and petroleum coke.

Product	Quantity					Value				
	1911–1915 [1]	1921–1925	1924	1925	1926	1911–1915 [1]	1921–1925	1924	1925	1926
Total value	-------	-------	-------	-------	-------	-------	[2]383,226	417, 288	447, 990	522, 527
Per cent of all exports	-------	-------	-------	-------	-------	-------	8. 9	9. 3	9. 3	11. 1
Liquid products, total [3]	42, 767	[2]76, 571	93, 477	93, 938	108, 423	120, 430	[2]363,787	392, 553	422, 894	497, 482
Gasoline, naphtha, etc	4, 334	21, 100	28, 246	30, 638	42, 539	21, 054	152, 050	167, 347	197, 492	263, 557
Kerosene	24, 566	20, 446	21, 818	21, 075	21, 736	62, 324	85, 381	88, 619	84, 700	99, 184
Gas and fuel oil	[4]11, 656	26, 555	34, 292	32, 509	34, 516	[4]13, 533	41, 207	49, 353	49, 040	45, 354
Lubricating oil	4, 765	8, 340	9, 031	9, 596	9, 266	26, 792	84, 746	86, 669	91, 063	86, 822
Insulating or transformer oils.					78					1, 086
Mineral spirits [5]	-------	-------	24	25	42	-------	-------	345	309	396
Residuum	[4] 1, 197	131	66	95	247	[4] 878	403	220	291	1, 083
Solid products:										
Lubricating grease	(6)	[7] 82	95	98	97	[8] 2, 328	4, 395	4, 981	5, 396	5, 213
Paraffin wax	255	311	383	334	336	8, 457	13, 828	18, 525	18, 625	18, 933
Petroleum jelly	(6)	[7] 8	10	6	5	[4] 679	1, 216	1, 229	1, 075	899

[1] Fiscal years ended June 30.

[2] Not including mineral spirits.

[3] Including residuum.

[4] Average for 3 years, 1913 to 1915.

[5] Substitutes for turpentine, shown separately only since 1923.

[6] Quantity not reported.

[7] Average for 4 years, 1922 to 1925.

[8] Average for 4 years, 1912 to 1915.

Source: Bureau of Foreign and Domestic Commerce.

The majority of foreign countries shared in the increased shipments of gasoline from the United States in 1926 as is indicated in Table 52. The United Kingdom continued to be our leading foreign market, taking a quantity 78 per cent greater than the year before. Notable increases also occurred in exports to France, the Netherlands, and the Scandinavian countries. Australia and New Zealand are also important and rapidly growing markets. Cuba took more than three times as much as in 1925. The United Kingdom was our leading customer for kerosene, but China and Japan also took large quantities. Some American countries took more kerosene and some less than the year before, the greatest increase being in exports to Canada and the greatest decrease in exports to Mexico. The United Kingdom, Panama, Chile, and Canada were our best markets for gas and fuel oils in 1926, while the United Kingdom, France, Germany, and Belgium took more than half of the exports of lubricating oils.

Table 52.—Domestic Exports of Principal Petroleum Products, by Countries of Destination

[In thousands of barrels]

Country	Gasoline		Kerosene		Gas and fuel oil		Lubricants	
	1925	1926	1925	1926	1925	1926	1925	1926[1]
Grand total	**30,638**	**42,539**	**21,075**	**21,736**	**32,509**	**34,516**	**9,596**	**9,266**
Europe:								
United Kingdom	8,237	14,629	2,548	2,994	4,405	5,709	2,092	2,201
France	6,143	7,371	1,428	2,008	515	680	1,708	1,588
Germany	1,103	1,590	751	641	982	845	990	825
Italy	1,052	1,033	542	517	1,139	279	517	459
Belgium	1,158	1,027	712	556	544	527	833	677
Netherlands	902	1,708	1,848	1,762	426	534	149	187
Spain	674	813	157	168	210	243	143	140
Scandinavian countries	1,134	1,798	1,148	1,142	974	753	411	304
Asia and Australasia:								
British India	2	2	1,505	1,748	60	(2)	408	378
Japan	217	493	1,490	2,441	1,585	2,149	190	202
China	296	193	3,216	2,587	641	664	114	126
Australia	1,542	1,936	571	571	13	2	271	359
New Zealand	794	975	122	109	710	995	61	71
Hong Kong	16	64	517	186	346	290	27	25
Philippine Islands	125	334	341	281	931	723	47	59
America:								
Argentina	720	681	325	326	1,247	2,140	197	211
Brazil	1,013	1,055	657	623	39	614	238	204
Chile	42	73	21	4	5,084	4,348	62	54
Uruguay	230	302	195	219	386	809	30	30
Mexico	207	225	64	20	814	924	74	83
Panama	142	233	41	53	4,011	5,106	9	10
Cuba	257	822	15	17	1,398	252	124	81
Canada	2,520	2,629	120	215	4,526	4,139	254	304
Africa:								
British South Africa	336	521	312	309	(2)	(2)	85	95
Algeria and Tunis	362	261	187	141	88	282	14	10

[1] In 1926 insulating or transformer oils are separated from lubricating oils and are not distributed by countries. See Table 51.

[2] Less than 500 barrels.

Source: Bureau of Foreign and Domestic Commerce.

Imports of crude oil, shown in Table 53, amounted to 60,382,000 barrels in 1926, of which 40,399,000 barrels came from Mexico. The decline in the quantity of our imports of crude oil since 1923 has been accompanied by a steady increase in the total value of imports, the average unit value of imports having doubled. Imports of mineral oils other than crude oil continued to be relatively small. The total imports of refined products in 1926 amounted to 20,902,000 barrels, equivalent to less than 3 per cent of the total crude oil run to stills.

Table 53.—Imports of Petroleum and its Products

[Quantities in thousands of barrels. Values in thousands of dollars]

Item	1910	1918	1921	1922	1923	1924	1925	1926
Total:								
Quantity [1]	571	38, 942	128, 776	135, 947	99, 914	94, 841	78, 149	81, 284
Value [2]	1, 425	26, 232	77, 715	88, 485	78, 713	101, 357	107, 694	124, 556
Crude oil:								
Quantity, total	--------	37, 736	125, 364	127, 308	82, 015	77, 775	61, 824	60, 382
From Mexico	--------	37, 719	125, 294	126, 195	79, 354	73, 979	55, 049	40, 399
Value, total	--------	21, 319	66, 547	70, 383	53, 882	73, 842	75, 407	79, 308
Refined and partly refined products:								
Quantity	--------	1, 207	3, 410	8, 639	17, 593	16, 759	16, 325	20, 902
Value	--------	4, 350	10, 842	17, 802	24, 272	26, 870	31, 283	44, 597
Fuel oil, quantity	--------	(3)	(3)	2, 947	12, 286	12, 927	12, 245	14, 432
Gasoline and like products, quantity	--------	307	900	1, 479	4, 555	3, 453	3, 813	5, 540

[1] Liquid products only.
[2] Including paraffin and paraffin wax from 1918 on.
[3] Not shown separately.

Source: Bureau of Foreign and Domestic Commerce.

WORLD PRODUCTION

According to preliminary figures of the American Petroleum Institute, shown in Table 54, the total world production of crude petroleum in 1926 was 1,097,000,000 barrels, as compared with 1,068,000,000 barrels in 1925, an increase of 3 per cent. Of the total output the United States is credited with 773,000,000 barrels or about 70 per cent. In general the trends in relative output of the various countries that were noticeable in 1925 were continued in 1926, namely, an increase in output in the United States, a 25,000,000 barrel decline in production in Mexico, considerable gains in Russia and Rumania, and large increases in Colombia and Venezuela. The decline in Mexico resulted mainly from economic and political causes which curtailed development work to a point too low to offset the natural decline of the proven fields. Much activity took place in 1926 in Venezuela, and Colombia also increased its output to 6,446,000 barrels as compared with 581,000 barrels in 1925.

Russian production has been expanding in each year since 1921, but in 1926 was still slightly smaller than before the war. Rumanian output of crude petroleum has also shown a steady upward trend in each of the past five years and was 72 per cent larger than in 1913.

Table 54.—World Production of Crude Petroleum

[In thousands of barrels]

Country	1900	1913	1921	1922	1923	1924	1925	1926 [1]
Total	**149, 137**	**385, 345**	**765, 903**	**858, 909**	**1, 018, 620**	**1, 013, 623**	**1, 067, 566**	**1, 096, 608**
United States	63, 621	248, 446	472, 183	557, 531	732, 407	713, 940	763, 743	773, 000
Mexico		25, 696	193, 398	182, 278	149, 585	139, 678	115, 515	90, 000
Russia	75, 780	62, 834	28, 968	35, 692	39, 156	45, 355	52, 448	61, 000
Venezuela			1, 433	2, 201	4, 201	9, 042	19, 687	37, 226
Persia		1, 857	16, 673	22, 247	28, 326	32, 373	35, 038	35, 460
Rumania	1, 629	13, 555	8, 368	9, 843	10, 867	13, 369	16, 646	23, 299
Dutch East Indies	2, 253	11, 172	16, 958	17, 066	19, 868	20, 473	21, 422	22, 200
Peru	274	2, 071	3, 699	5, 314	5, 699	7, 812	9, 164	10, 782
India	1, 079	7, 930	8, 734	8, 529	8, 320	8, 416	8, 000	8, 728
Argentina		131	2, 036	2, 866	3, 400	4, 669	5, 818	6, 500
Colombia				323	424	445	581	6, 446
Poland	2, 347	7, 818	5, 167	5, 227	5, 402	5, 657	5, 960	5, 835
Trinidad		504	2, 354	2, 445	3, 051	4, 057	4, 654	4, 971
Sarawak		141	1, 411	2, 849	3, 940	4, 163	4, 257	4, 300
Japan and Formosa	871	1, 940	2, 233	2, 055	1, 805	1, 814	2, 000	1, 900
Egypt		98	1, 255	1, 188	1, 054	1, 122	1, 226	1, 161
Other countries	1, 283	1, 152	1, 033	1, 255	1, 115	1, 238	1, 407	800

[1] Estimate by American Petroleum Institute.

Source: Bureau of Mines, Department of Commerce.

NATURAL GAS AND NATURAL-GAS GASOLINE

The production of natural-gas gasoline, which has increased in each year since statistics were first compiled (1911), amounted to 32,300,000 barrels in 1926, equivalent to about 11 per cent of the total gasoline produced from petroleum. Approximately 75 per cent of the total output of natural-gas gasoline was blended at the refineries, the major portion of the remainder being run through pipe lines in combination with other oils or lost by evaporation. The 1926 increase of this valuable adjunct of motor fuel is attributed to larger quantities of gas treated as well as to improved methods of recovery.

In the case of natural gas also, there has been a steady uptrend in both quantity and value of production, with the exception of two breaks in 1917–18 and 1920–21 in quantity, and a single drop in value between 1920 and 1921.

Figures for the natural-gas industry in 1926 are not yet available, but according to reports received by the Bureau of Mines from producers and distributers, shown in Table 56, 1,188,571,000,000 cubic feet of natural gas were produced in the United States and delivered to consumers in 1925. Although the total constituted a record for gas production, it was an increase over 1924 of only 4 per cent, while the average yearly increase for the previous 10 years had been 8 per cent. The value of this gas at the wells in 1925 was 9.4 cents per thousand cubic feet, and at points of consumption 56 cents per thousand for domestic purposes and 12.3 cents for industrial uses. Prices to both domestic consumers and industrial consumers were slightly higher than in 1924.

Table 55.—Marketed Production of Natural Gas and Production of Natural-Gas Gasoline

[Production of gas is in billions of cubic feet; of gasoline in thousands of barrels; value in millions of dollars]

Year	Natural gas		Natural gas gasoline		Year	Natural gas		Natural gas gasoline	
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value
1890	(1)	19	(1)	(1)	1915	629	101	1, 556	5
1895	(1)	13	(1)	(1)	1916	753	120	2, 464	14
1900	(1)	24	(1)	(1)	1917	795	142	5, 188	40
1905	(1)	42	(1)	(1)	1918	721	154	6, 727	50
1906	389	47	(1)	(1)	1919	746	161	8, 370	64
1907	407	54	(1)	(1)	1920	798	196	9, 161	72
1908	402	55	(1)	(1)	1921	662	175	10, 713	62
1909	481	63	(1)	(1)	1922	762	222	12, 044	73
1910	509	71	(1)	(1)	1923	1, 007	240	19, 434	77
1911	513	75	177	0. 5	1924	1, 142	254	22, 235	82
1912	562	85	288	1	1925	1, 189	265	26, 845	120
1913	582	88	573	2	1926	(1)	(1)	[2] 32, 304	(1)
1914	592	94	1, 016	3					

[1] Not available.

[2] Preliminary estimate.

Source: Bureau of Mines, Department of Commerce.

The total consumption of natural gas (including residue gas from natural-gas gasoline plants) by industrial users in 1925 was 916,293,000,000 cubic feet, or 77 per cent of the total consumption. Of this total industrial consumption 423,524,000,000 cubic feet were used for field purposes and 492,769,000,000 cubic feet for other industrial uses, including the manufacture of carbon black, which has continued to be an important by-product although it showed a slight decline in 1925.

Table 56.—Natural Gas

Item	1919	1920	1921	1922	1923	1924	1925
Consumption (million cubic feet):							
Domestic	255, 743	286, 001	248, 334	254, 413	277, 050	285, 152	272, 146
Industrial—							
For carbon black	49, 896	40, 599	50, 565	53, 629	109, 096	156, 514	140, 366
Field use	169, 787	202, 108	182, 305	197, 850	343, 076	393, 437	423, 524
All other	270, 490	269, 502	180, 848	256, 654	277, 745	306, 379	352, 403
Treated for natural-gas gasoline (million cubic feet)	480, 404	496, 431	465, 087	545, 139	875, 711	1, 016, 276	1, 040, 390
Value at points of consumption (thousands of dollars):							
Domestic consumption	88, 414	109, 302	110, 337	126. 902	142, 317	154, 075	152, 494
Industrial consumption	72, 474	86, 892	64, 280	94, 633	97, 678	99, 755	112, 690
Average value per 1,000 cubic feet (cents):							
At wells	---------	---------	---------	11. 1	10. 0	9. 3	9. 4
At points of consumption—							
Domestic	34. 6	38. 2	44. 4	49. 9	51. 4	54. 0	56. 0
Industrial	14. 8	17. 0	15. 5	18. 6	13. 4	11. 6	12. 3
Number of domestic consumers (thousands)	2, 501	2, 615	2, 631	3, 015	3, 234	3, 443	3, 536
By-products:							
Natural-gas gasoline (thousand barrels)	8, 370	9, 161	10, 713	12, 044	19, 434	22, 235	26, 845
Value (thousand dollars)	64, 197	71, 788	61, 815	72, 711	77, 268	82, 233	120, 383
Carbon black (thousand pounds)	52, 100	51, 300	59, 800	67, 800	138, 300	186, 872	177, 417
Value (thousand dollars)	3, 816	4, 032	5, 446	5, 820	11, 692	11, 565	9, 640

Source: Bureau of Mines, Department of Commerce.

In 1925 there were 3,536,000 domestic consumers of natural gas, or 93,000 more than in 1924. The total consumption by domestic users amounted to 272,146,000,000 cubic feet, valued at $152,494,000. Interstate transportation of natural gas, carried on mainly for domestic consumption, increased in 1925. The major interstate movement continued to be from West Virginia to Ohio.

The relative rank of the chief gas-producing States was unchanged in 1925, as is indicated by Table 57. Oklahoma, which ranks first, registered a 16 per cent gain in production, and Texas, a 26 per cent gain. California, West Virginia, and Louisiana showed slight declines in output.

Table 57.—Natural Gas Production and Consumption, by States

[Quantities in millions of cubic feet]

State	Production			Consumption			Average value in 1925 (cents per 1,000 cubic feet)	
	1921	1924	1925	1921	1924	1925	At well	At consuming points[1]
Total	**620,052**	**1,141,521**	**1,053,699**	**666,052**	**1,141,482**	**1,188,439**	**9.4**	**22.3**
Arkansas	4,260	36,616	41,878	10,637	44,595	51,543	6.0	12.9
California	75,942	189,692	187,789	79,942	189,692	187,789	7.5	17.4
Illinois	2,646	4,072	4,165	2,630	4,072	4,165	18.0	20.8
Kansas	15,717	25,580	26,917	26,172	40,528	48,684	8.2	24.7
Kentucky	4,820	12,875	10,770	13,667	21,514	18,601	9.6	30.8
Louisiana	58,004	160,945	152,620	53,027	163,469	148,000	3.1	4.4
Missouri	4	71	34	4,467	5,394	5,372	9.1	87.7
New York	6,583	6,196	6,210	15,541	16,506	16,503	30.0	60.9
Ohio	47,412	47,396	43,235	106,051	111,353	111,969	17.9	52.4
Oklahoma	124,058	214,452	249,285	100,903	183,451	209,458	7.4	13.1
Pennsylvania	86,144	105,863	101,632	100,615	123,932	119,475	24.0	45.2
Texas	44,504	107,247	134,872	51,341	107,447	142,485	5.2	15.4
West Virginia	174,921	182,285	180,345	81,509	79,240	74,250	13.8	24.4
Wyoming	15,608	46,036	45,539	15,608	44,879	44,427	4.2	8.8
All other[2]	1,429	2,195	3,280	3,942	5,410	5,718	16.6	35.6

[1] Based on consumption figures. Average value of production is different in States which pipe gas to other States.

[2] Figures for 1921 include Colorado, Indiana, Iowa, Maryland, Michigan, Montana, North Dakota, Oregon, South Dakota, and Tennessee; for 1924, also Alaska, but not Oregon and Maryland (for consumption only); for 1925, also Alaska and New Mexico, but not Oregon and Maryland (for consumption only).

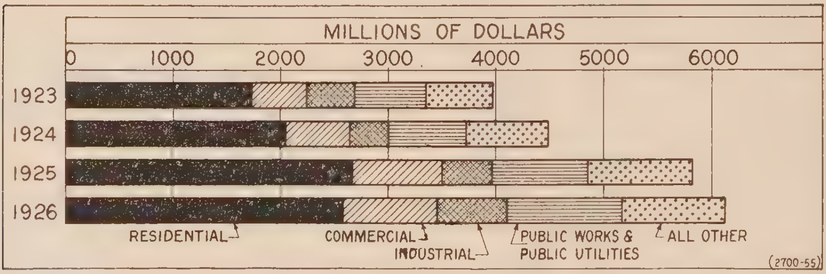
Source: Bureau of Mines, Department of Commerce.

CONSTRUCTION

SUMMARY.—The volume of construction during the year 1926 as measured by consumption of building materials was about equal to the record-breaking total of 1925 and was higher than in any previous year. The value of contracts awarded was the largest on record, and left a substantial carry-over of work on hand to be completed during 1927. Building material prices, more stable than in any other year since the war, were a little below 1925, while building trades wage scales were slightly higher.

Increased contracts for construction of public works and utilities, and for industrial buildings, more than offset a 3 per cent decline in residential building contracts. Changes in character of construction activity were likewise indicated by shifts in consumption of various materials. Shipments of Portland cement increased about 3 per cent compared with 1925; shipments of fabricated steel, 4 per cent; new orders for fabricated steel plate, 31 per cent; and floor and wall tile about 13 per cent. Lumber consumption was apparently slightly smaller. Shipments of baths and other enameled ware, and orders for tubular plumbing fixtures were down 10 to 20 per cent.

Chart I.—VALUE OF CONSTRUCTION CONTRACTS IN 36 STATES, BY PRINCIPAL CLASSES



Contracts awarded amounting to more than $6,120,000,000 were reported by the F. W. Dodge Corporation for all types of construction in 36 States, an increase in value of about 5 per cent over 1925. The floor space in the buildings involved (as distinguished from roads and other public works) declined 5½ per cent as compared with 1925, but was still 20 per cent greater than for 1924, the next highest year on record. The value of building permits granted in 168 cities was 5.8 per cent lower than in 1925, and contracts awarded for leading classes of work not covered by building permits increased 11 per cent, as reported by the Engineering News-Record.

Owners and builders continued to adjust the rate of building projects to the available supply of labor and materials, with resulting stability and reasonably good seasonal distribution of work.

The wholesale price index for building materials averaged 173.4 compared with 175.1 in 1924 and in 1925. From the high point of 177.9 in January, it declined to 171.2 in June, and stood at 172.7 in December. Various indexes of construction costs varied only about 2 per cent between the high and low points for the year, but were slightly higher than in 1925 owing to increased wage rates. The Department of Commerce frame-house retail material price index averaged 194.6, about a point lower than in 1925.

POSITION AND CHARACTER OF THE INDUSTRY

It is only recently that the building of houses and construction of buildings, roads, canals, bridges, railroads, harbor works, subways, tunnels, water-supply systems, and other work that produces a more or less fixed structure or alteration of the natural topography, have been clearly recognized as a single industry. The importance of the construction industry is hard to overemphasize. In value of product it ranks considerably above the automobile industry, the largest manufacturing industry, and about on a par with railway operating receipts. Variations in construction activity from year to year have a large share in determining the prosperity of other major industries, such as railways and lumber mills. Construction affects scores of manufacturing industries, and bears some relation to retail trade and to the individual incomes of practically every family in the country.

Existing construction underlies the whole economic organization of the country. The production of manufacturing industries is carried on mainly in buildings, of course, but depends even more on the physical network of railways, highways, telephone and telegraph systems, and lines for the transmission of power and water, all of which are in large measure the products of construction. Living standards of the people depend very largely on the character of dwellings; on the availability of water, sewers, gas, and electricity; on the accessibility of varied recreational facilities; and on the streets and roads which enable them to get from place to place. There is a measurable relation between the character of dwellings and health. The schools require a great number of buildings in order to do their work effectively.

The volume and character of new construction is of great importance. The million and a half increase in population each year requires new dwellings, increased manufacturing facilities, and increased public utilities and other types of construction. Structures worn out or destroyed must be replaced. If living standards are to improve and people are to occupy better houses, continued large construction programs are needed. Some types of construction add to the productivity of industry. In general, progress depends largely on the Nation's devoting a due proportion of its energies to construction.

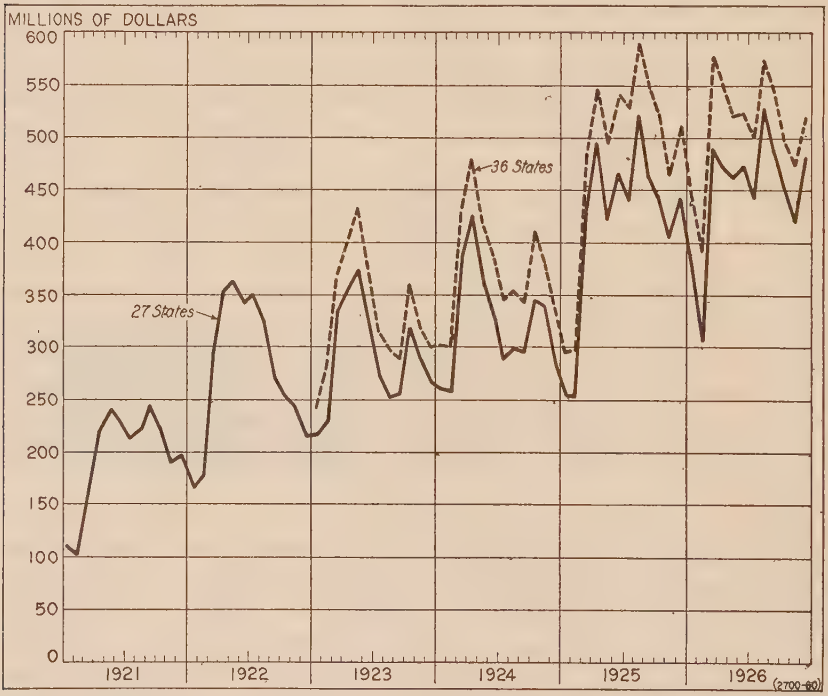
Probably half the construction in the United States to-day, measured in value, is less than 30 years old, and another 30 years hence a backward look to the present may show a similar situation.

Measurement of Building Activity.

Construction activity is most properly measured in terms of employment of men and equipment and consumption of materials. Since few statistics covering these points are available, those showing contracts awarded and building permits must be used very largely instead. The figures as to contracts probably include all important buildings and engineering projects within the territory specified but stop short of small buildings on farms. They cover a sufficient proportion of the country to be fairly representative of the total.

Building-permit figures do not include street paving or some other kinds of engineering projects within cities nor construction outside of cities. The valuation given in building permits is only estimated, and a person is under no obligation to complete a building for which he has taken out a permit. In times of sudden depression work never materializes under many of the permits granted, while a sudden change in building costs may bring the actual expenditure considerably above or below the figure in the permit.

Chart II.—VALUE OF CONSTRUCTION CONTRACTS IN 27 AND 36 STATES



Actual building takes place after permits have been taken out or contracts awarded and (apart from seasonal influences) is subject to much less sharp fluctuation. Great activity in building may continue for sometime after a marked falling off in these indicators.

CONSTRUCTION ACTIVITY

The actual volume of construction as shown by consumption of materials was, as mentioned in the summary, about equivalent to or slightly over that during 1925. Contracts awarded in 36 States, as reported by the F. W. Dodge Corporation, were valued in 1926 at $6,121,000,000 compared with $5,822,000,000 in 1925 and $4,486,000,000 in 1924. (Table 1.) The 838,000,000 square feet of floor space in buildings represented in these contracts (exclusive of public works and utilities) were 5½ per cent less than in 1925, although 20 per cent greater than in 1924. The first six months of 1926 showed an increase of 13 per cent in value of contracts awarded compared with the same period in 1925, while the last six months were 1½ per cent under the corresponding figures for the preceding year.

Table 1.—Construction Contracts Awarded in 36 and 27 States

[Value in millions of dollars, floor space in millions of square feet]

Year	36 States—total		27 States					
			Total, all classes		Industrial		Residential	
	Value of construction	Floor space of buildings	Value of construction	Floor space of buildings	Value of construction	Floor space of buildings	Value of construction	Floor space of buildings
1915	(1)	(1)	940	(2)	107	64	418	228
1916	(1)	(1)	1,357	(2)	183	97	483	218
1917	(1)	(1)	1,618	(2)	248	109	355	151
1918	(1)	(1)	1,689	(2)	482	181	305	104
1919	(1)	(1)	2,580	560	513	153	849	242
1920	(1)	(1)	2,533	402	589	128	566	138
1921	(1)	(1)	2,360	387	173	36	878	205
1922	(1)	(1)	3,353	574	325	66	1,347	311
1923	3,981	679	3,494	592	379	62	1,583	354
1924	4,486	699	3,880	601	285	41	1,843	371
1925	5,822	888	5,043	762	413	59	2,360	470
1926	6,121	838	5,391	741	566	68	2,339	450

[1] No comparable data available. Figures for 36 States were not collected prior to 1923.
[2] Corresponding figures for floor space not available.

Source: The F. W. Dodge Corporation.

An extraordinary volume of residential building contracts accounted for the greater part of the increase during the first half of 1926. During the last half residential contracts decreased substantially from the 1925 figures, however, and for the year as a whole were lower than in 1925. (Table 7.) The perceptible shifts among types of construction are revealed not only by these figures, but by the Engineering News-Record's reports of contracts awarded for public works and large buildings which showed a 11 per cent increase in 1926 compared with 1925 (Table 11), and by a decline of 6 per cent in value of building permits in 168 cities. (Table 4.) The shifts were reflected in a 3 per cent increase in consumption of cement, an increase of 4 per cent in shipments of fabricated structural steel, of 31 per cent in new orders for fabricated steel plate,[1] and of about 13 per cent in shipments of floor and wall tile. Shipments of baths and other enameled ware, and of tubular plumbing fixtures, declined from 10 to 20 per cent, and shipments of prepared roofing about 2 per cent. Face brick shipments were about even with 1925, while lumber consumption was slightly smaller.

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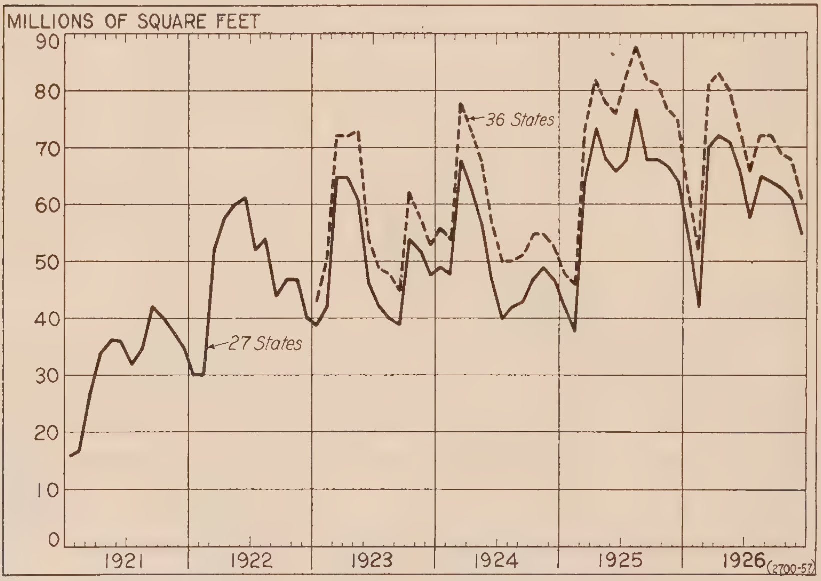
[1] Orders for fabricated steel plates included in this comparison are for oil-storage tanks, refinery equipment, gas holders, stacks, and miscellaneous, but do not include tank cars.

Consumption of practically all building materials was greater, however, than in 1924 or than in any other year during the preceding decade, and the physical volume of total construction was measurably above any year prior to 1925. Actual construction activity, although still seasonal, was distributed about as evenly throughout the year as in 1924 and 1925. The past three years represent an improvement in this respect over those immediately preceding, according to the available records of employment and use of materials furnished to the Division of Building and Housing of the Department of Commerce by representative large contractors. Operations reached their highest point from July to October, and held up well during November and December.

Chart III. –FLOOR SPACE COVERED BY BUILDING CONTRACTS IN 27 AND 36 STATES



Total Value of Construction.

Statistics on construction contracts awarded are available since 1925 for 37 States, which include 90 per cent of the total population.[2] The value of contracts in these States in 1926 was $6,353,000,000. At the same rate the total for the entire country would aggregate more than $7,000,000,000. In addition there is a certain amount of work for which no contracts are let, which would probably further increase the total.

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[2] The States not covered are Washington, Idaho, Montana, Oregon, Wyoming, Utah, Nevada, California, Arizona, New Mexico, and Colorado. Prior to 1923 figures for Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, and parts of Kansas and Nebraska were not compiled, therefore figures can be given for comparison with earlier years only for 27 northern and eastern States.

Table 2.—Construction Contracts Awarded in 36 States, by Months

Period	Value of construction (thousands of dollars)				Floor space of buildings[1] (thousands of square feet)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total	**3, 981, 314**	**4, 485, 791**	**5, 822, 240**	**6, 120, 994**	**678, 866**	**699, 320**	**887, 550**	**838, 430**
January	242, 738	301, 952	296, 473	443, 373	43, 327	55, 857	47, 632	62, 341
February	281, 140	299, 929	299, 260	391, 723	49, 553	54, 410	46, 179	52, 244
March	371, 447	433, 340	480, 916	576, 800	71, 825	77, 803	73, 269	81, 421
April	399, 201	480, 097	546, 971	552, 253	72, 277	72, 695	81, 843	82, 808
May	433, 907	419, 273	496, 024	520, 707	72, 882	68, 332	78, 290	79, 819
June	371, 034	387, 521	540, 610	523, 011	53, 727	56, 699	76, 273	73, 352
July	315, 024	347, 184	529, 000	501, 380	49, 170	49, 673	81, 772	65, 688
August	298, 629	354, 443	589, 690	574, 046	48, 210	49, 696	88, 146	71, 589
September	288, 932	344, 316	548, 217	544, 528	44, 856	51, 293	81, 708	71, 535
October	360, 687	410, 091	519, 528	499, 366	62, 192	54, 616	81, 051	68, 740
November	318, 829	379, 660	464, 683	473, 700	57, 578	54, 924	76, 715	67, 663
December	299, 748	327, 986	510, 868	520, 108	53, 269	53, 321	74, 671	61, 229

[1] Does not include floor space for public works and public utilities.

Source: The F. W. Dodge Corporation.

Table 3.—Construction Contracts Awarded in 36 States, by Classes and Districts [1]

NOTE.—Comparative figures for the Texas district for 1926, were value $232,411,800, floor space 38,690,700 square feet.

Year and class	Value (in thousands of dollars)							
	36 States	Boston	New York	Philadelphia	Pittsburgh	Southeastern	Chicago	Minneapolis
Total all classes:								
1923	3, 981, 314	329, 839	1, 070, 487	365, 482	594, 093	487, 196	1, 006, 882	127, 336
1924	4, 485, 791	352, 195	1, 336, 123	477, 746	578, 555	606, 255	1, 046, 586	88, 331
1925	5, 822, 240	477, 181	1, 601, 329	552, 318	828, 912	779, 212	1, 488, 060	95, 229
1926	6, 120, 994	441, 583	1, 775, 061	658, 414	741, 368	730, 317	1, 672, 133	102, 118
1926								
Residential	2, 579, 327	197, 689	924, 881	278, 077	242, 732	240, 489	657, 383	38, 076
Commercial	880, 102	69, 941	269, 422	120, 750	77, 480	95, 957	232, 890	13, 663
Industrial	651, 106	37, 037	137, 368	65, 532	107, 547	84, 780	210, 345	8, 498
Educational	367, 059	35, 706	68, 998	47, 143	43, 964	45, 934	116, 208	9, 107
Public works and public utilities	1, 063, 239	53, 573	216, 625	77, 435	203, 587	206, 977	283, 851	21, 191
All other	580, 161	147, 637	157, 768	69, 477	66, 059	56, 180	171, 456	11, 583
	Floor space (in thousands of square feet)[2]							
Total all classes:								
1923	678, 565	61, 607	204, 073	69, 295	81, 150	86, 590	153, 954	21, 897
1924	699, 320	62, 912	219, 427	74, 070	77, 757	98, 404	152, 419	14, 331
1925	887, 550	82, 323	251, 363	96, 005	96, 752	125, 404	218, 654	17, 049
1926	838, 430	70, 639	251, 316	96, 850	86, 227	97, 159	220, 290	15, 949
1926								
Residential	498, 927	44, 749	175, 437	56, 760	45, 413	48, 679	118, 844	9, 046
Commercial	142, 357	12, 160	38, 147	15, 903	13, 757	21, 318	38, 401	2, 671
Industrial	78, 790	4, 487	13, 469	9, 751	12, 733	11, 026	29, 961	1, 362
Educational	52, 207	4, 235	8, 665	6, 045	6, 709	7, 729	17, 374	1, 451
All other	66, 148	5, 009	15, 599	8, 391	7, 614	8, 408	19, 709	1, 419

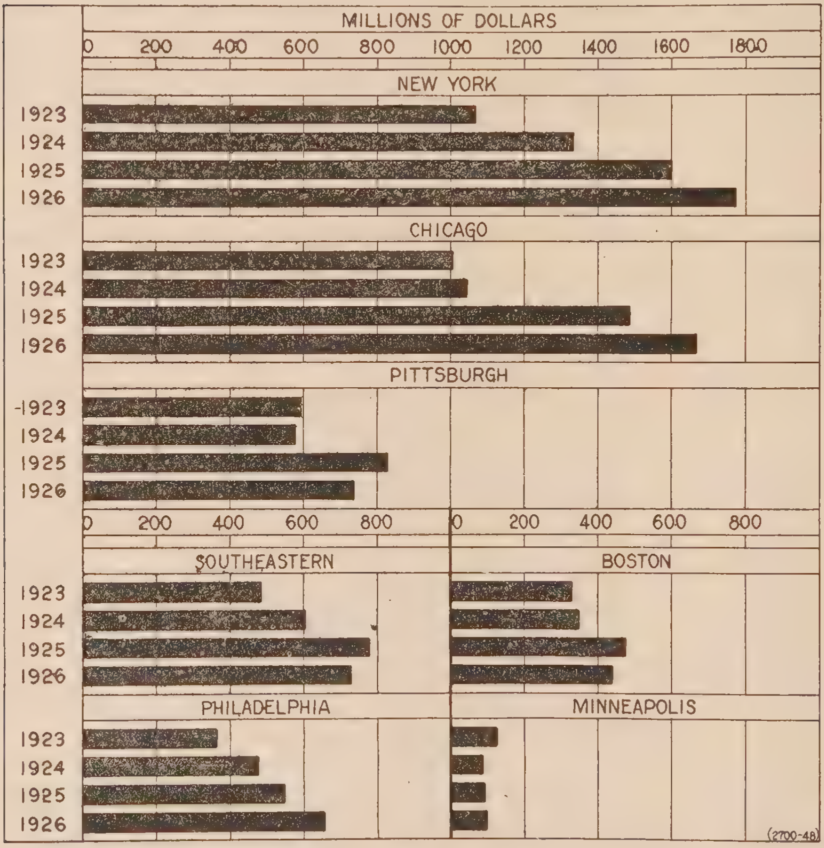
[1] Boston district includes New England States. New York district includes New York and Northern New Jersey. Philadelphia district includes Eastern Pennsylvania, Southern New Jersey, Maryland, Delaware, District of Columbia, and Virginia. Pittsburgh district includes Western Pennsylvania, West Virginia, Ohio, and Kentucky. Southeastern district includes North Carolina, South Carolina, Georgia Florida, Alabama, Mississippi, Tennessee, Arkansas, and Louisiana. Chicago district includes Illinois, Indiana, Iowa, Wisconsin, southern Michigan, Missouri, Kansas, Nebraska, and Oklahoma. Minneapolis district includes Minnesota, North Dakota, South Dakota, and northern Michigan.

[2] Excludes floor space for Public Works and Public Utilities.

Construction by Regions.

Fluctuations in building activity are much greater from year to year in individual cities and for States and regions than for the country as a whole. The group of States designated by the F. W. Dodge Corporation as the Philadelphia district showed an increase in value of contracts awarded in 1926 compared with 1925, of 19 per cent;

Chart IV.—VALUE OF CONSTRUCTION CONTRACTS IN 36 STATES BY DISTRICTS



the Chicago district, 12 per cent; the New York district, 11 per cent; and the Minneapolis district, 7 per cent. The Boston, Pittsburgh, and Southeastern districts showed decreases. Residential construction amounted to 52 per cent of the total in the New York district, and 45 per cent in the Boston district, while public works and utilities were especially prominent in the Southeastern and Pittsburgh districts, constituting more than one quarter of the total.

Building Operations in Leading Cities.

New York again in 1926 issued much the largest value of permits of any city, its total being greater than that of the next seven cities combined. Chicago retained its place as second city by a wide margin, while Detroit, Philadelphia, and Los Angeles ranked next in value of building permits issued, as in 1925. The 20 leading cities according to value of building permits in 1926, are shown in Table 4. The greatest percentage increases over 1925 were in San Francisco, Seattle, and Milwaukee. Building permits in 168 identical cities in 1926 were valued at $3,575,000,000, compared with $3,793,000,000 in 1925, and $3,227,000,000 in 1924. The decline of 5.8 per cent in value of permits in these cities at a time when the total value of contracts awarded increased is explained by the limitations of building permits as a statistical measure and the relative increase in public utilities and public works construction, which is not ordinarily included in building permit statistics.

Table 4.—Value of Building Permits Issued in Leading Cities [1]

City	Value of building permits in thousands of dollars								1926 per cent change from 1925
	1913	1920	1921	1922	1923	1924	1925	1926	
New York	162, 759	277, 695	442, 285	645, 176	789, 265	836, 044	1, 020, 891	1, 039, 671	+1. 8
Chicago	89, 668	84, 603	133. 028	229, 853	334, 164	308, 911	373. 804	376, 808	+. 8
Detroit	30, 434	77, 737	58, 086	93, 615	129, 720	160, 548	180, 133	183, 719	+2. 0
Philadelphia	35, 126	54, 174	41, 951	114, 191	128, 227	141, 403	171, 034	140. 093	−18. 1
Los Angeles	31, 642	60, 024	82, 761	121, 207	200, 133	150, 148	152, 646	123, 006	−19. 4
Washington	10, 499	17, 893	26, 436	50, 266	50, 754	48, 090	65, 490	64, 970	−. 8
Cleveland	22, 543	64, 199	86, 680	54, 351	72, 450	62, 980	67, 916	61, 777	−9. 0
San Francisco	21, 037	26, 731	21, 716	45, 147	46. 348	57, 603	50, 093	57, 154	+14. 1
Boston	22, 780	28, 168	24, 058	57, 497	40, 676	53, 032	70, 718	51, 484	−27. 2
Pittsburgh	15, 471	16, 555	23, 477	31, 072	33, 426	32, 155	52, 272	43, 790	−16. 2
St. Louis	15, 340	17, 694	14, 502	24, 980	41, 352	39, 766	55, 057	42, 739	−22. 4
Baltimore	14, 054	30, 630	37, 017	40. 452	38, 946	46, 664	45, 458	42, 456	−6. 6
Newark	16, 318	22, 598	18, 704	28, 361	35, 756	41, 756	39, 607	41, 198	+4. 0
Seattle	9, 321	13, 631	12, 809	19, 624	22, 951	27, 212	30, 627	34, 218	+11. 7
Milwaukee	13, 648	14, 846	19, 417	25, 141	34, 110	37, 442	31, 477	33, 814	+7. 4
Portland	12, 957	11, 850	14, 819	22, 334	25, 215	29, 219	38. 476	32, 589	−15. 3
Cincinnati	7, 543	10, 899	15, 261	25, 596	23, 365	23, 572	31, 970	29, 257	−8. 5
Houston	(2)	7, 830	9, 287	12, 496	19, 117	17, 217	35, 041	28, 498	−18. 7
Oakland	8, 535	9, 402	15, 724	24, 391	27, 157	30, 937	38, 964	27, 728	−28. 8
Buffalo	13, 300	13, 522	19, 675	25, 853	29, 880	28, 402	26, 774	27, 413	+2. 4
Total, 168 cities	(2)	1, 436, 716	1, 666, 072	2, 543, 197	3, 114, 186	3, 226, 574	3, 793, 169	3, 574, 872	−5. 8

[1] Includes new residential and nonresidential buildings and repairs, alterations, and additions to old buildings.

[2] Not available.

Sources: Bureau of Labor Statistics, Department of Labor, except 1913, which is from Geological Survey, Department of the Interior, for all cities except New York which is from the American Contractor. Total for 168 cities from the Federal Reserve Board.

Distribution of Construction by Classes.

Residential construction, which was 42 per cent of the value of all construction contracts reported by the F. W. Dodge Corporation in 1926, continued to be the largest single item in the nation's building program, although it was relatively less important than in any of the three years preceding. Commercial or business building contracts in 1926 represented about one-seventh of the total, about the same as in the average of the preceding seven years. Industrial building rose to 10.6 per cent of the total, the highest ratio since 1923, but still far below its position in 1919 and 1920. Public works and utilities contracts which had slowly declined in relative importance from 1920 to 1925 increased in 1926, amounting to 17.4 per cent of the total. Of the remaining groups of construction which together represented 16 per cent, educational buildings accounted for 6 per cent, and social and recreational buildings for about 4 per cent.

Table 5. Relative Value of the Several Classes of Construction Contracts

Class	Per cent of total value—27 States								Per cent of total value—36 States			
	1919	1920	1921	1922	1923	1924	1925	1926	1923	1924	1925	1926
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Residential	32.9	22.3	37.2	40.2	45.3	47.5	46.8	43.4	43.6	45.7	45.9	42.2
Commercial	15.7	16.6	14.3	14.8	12.8	13.5	14.2	14.5	12.9	13.3	14.4	14.4
Industrial	19.9	23.3	7.3	9.7	10.8	7.3	8.2	10.5	11.1	7.9	7.9	10.6
Public works and utilities	19.5	22.4	19.5	16.8	16.0	14.9	14.0	15.9	16.7	16.1	15.2	17.4
Educational	4.6	6.8	10.3	9.0	7.8	8.2	7.3	6.0	8.1	8.2	7.1	6.0
Hospitals and institutions	1.5	1.9	3.0	2.6	1.8	2.5	1.9	2.2	2.0	2.5	1.9	2.1
Public buildings	.5	1.1	.9	1.0	.5	.7	.7	.8	.6	.8	.8	.9
Religious and memorial	1.5	1.6	2.6	2.6	2.1	2.5	2.5	2.4	2.2	2.7	2.5	2.4
Social and recreational	3.2	3.6	4.6	3.3	2.9	2.8	4.3	4.1	2.8	2.7	4.2	3.9
Military and naval buildings	.7	.5	.3	.1	.1	.1	.1	.1	.1	.1	.1	.1

Sources: Divison of Statistical Research, Bureau of Foreign and Domestic Commerce, based on data furnished by the F. W. Dodge Corporation.

Residential Construction.

The total floor space of residential construction for which contracts were let in 36 States was 499,000,000 square feet, about 8 per cent under the amount in 1925, but more than 18 per cent above 1924. The value of these contracts was $2,579,000,000, a decrease of 3 per cent from 1925, but 26 per cent above 1924. The contract awards during the first six months of the year (Table 7) exceeded those during the same period in 1925, but during the second half of 1926 ran consistently below the extraordinary awards of the last half of 1925. Figures compiled by the United States Bureau of Labor Statistics for 257 cities showed a decrease compared with 1925, in number of families provided for in new dwellings for which permits were issued, from 491,000 to 462,000. The same compilation indicated that the proportion of families accommodated in new single-family dwellings in the same 257 identical cities decreased from 46 per cent in 1925 to 40.7 per cent in 1926, while the proportion accommodated in new two-family dwellings including those with stores attached decreased from 17.5 per cent to 13.9 per cent and the accommodations in multiple-family dwellings increased from 36.4 per cent to 45.4 per cent of the total.

Table 6.—Construction Contracts Awarded by Classes

NOTE.—The value of military and naval buildings for 36 States in 1926 was $8,612,700 and the floor space amounted to 1,091,900 square feet.

[Values in millions and tenths of millions of dollars; floor space in thousands of square feet]

Year	Total	Residential	Commercial	Industrial	Public works and utilities	Educational	Hospitals and institutions	Public buildings	Religious and memorial	Social and recreational
27 STATES										
Value of construction:										
1919	2, 579. 9	849. 2	405. 7	512. 9	502. 0	119. 5	39. 2	13. 4	37. 5	83. 6
1920	2, 533. 2	566. 1	419. 7	589. 0	566. 3	172. 3	47. 5	26. 6	41. 4	91. 1
1921	2, 360. 2	877. 9	338. 0	173. 3	459. 4	243. 7	70. 1	22. 3	60. 4	108. 8
1922	3, 352. 7	1, 347. 2	496. 3	325. 0	562. 2	303. 3	86. 6	32. 4	86. 1	110. 0
1923	3, 494. 1	1, 582. 8	446. 1	378. 8	557. 4	272. 5	62. 0	19. 2	72. 0	100. 3
1924	3, 879. 5	1, 842. 5	522. 2	285. 1	577. 3	317. 1	98. 3	28. 6	96. 3	109. 8
1925	5, 043. 0	2, 359. 9	717. 3	413. 3	704. 1	369. 5	97. 6	35. 3	124. 7	216. 2
1926	5, 390. 7	2, 338. 8	784. 1	566. 3	856. 3	321. 1	120. 8	44. 3	127. 9	223. 5
Floor space of buildings:										
1919	560, 219	241, 880	110, 884	153, 268	--------	22, 979	6, 821	2, 066	5, 334	15, 175
1920	401, 794	137, 524	82, 434	127, 830	--------	26, 278	6, 277	2, 732	5, 063	12, 360
1921	387, 229	204, 575	65, 235	35, 771	--------	40, 583	10, 683	3, 056	9, 201	17, 466
1922	573, 856	311, 407	95, 233	65, 550	--------	54, 592	11, 779	3, 382	12, 857	18, 216
1923	591, 976	354, 257	92, 788	62, 205	--------	44, 332	9, 997	3, 123	9, 284	15, 435
1924	600, 916	371, 068	95, 861	40, 967	--------	46, 875	12, 707	4, 451	11, 960	16, 484
1925	762, 146	470, 207	124, 064	58, 719	--------	51, 204	12, 020	4, 703	13, 814	26, 476
1926	741, 270	450, 249	121, 039	67, 764	--------	44, 478	13, 131	4, 631	13, 019	26, 166
36 STATES										
Value of construction:										
1923	3, 981. 3	1, 734. 5	512. 9	443. 2	665. 5	320. 6	78. 1	23. 3	89. 1	110. 6
1924	4, 485. 8	2, 050. 1	596. 3	355. 3	723. 9	367. 4	112. 5	35. 9	119. 1	123. 0
1925	5, 822. 2	2, 672. 0	835. 7	462. 7	885. 7	413. 2	108. 5	46. 7	148. 0	243. 6
1926	6, 121. 0	2, 579. 3	880. 1	651. 1	1, 063. 2	367. 1	130. 6	54. 8	144. 5	241. 6
Per cent change from 1925	+5. 1	−3. 5	+5. 3	+40. 7	+20. 0	−11. 2	+20. 4	+17. 4	−2. 4	−. 8
Floor space of buildings:										
1923	678, 565	392, 747	109, 508	73, 421	--------	55, 688	12, 307	3, 806	12, 710	17, 721
1924	699, 320	422, 285	113, 040	50, 033	--------	58, 241	15, 155	5, 492	15, 514	19, 201
1925	887, 550	540, 509	151, 062	67, 478	--------	58, 700	13, 595	6, 703	17, 786	30, 584
1926	838, 430	498, 927	142, 357	78, 790	--------	52, 207	14, 451	6, 127	15, 518	28, 961
Per cent change from 1925	−5. 5	−7. 7	−5. 8	+16. 8	--------	−11. 1	+6. 3	−8. 6	−12. 8	−5. 3

Source: The F. W. Dodge Corporation.

Table 7.—Residential Construction: Contracts Awarded in 36 States, by Months

Period	Value (thousands of dollars)				Floor space (thousands of square feet)			
	1923	1924	1925	1926	1923	1924	1925	1926
Year	**1, 734, 494**	**2, 050, 093**	**2, 671, 970**	**2, 579, 327**	**392, 747**	**422, 285**	**540, 509**	**498, 927**
January	122, 678	170, 186	127, 232	183, 279	26, 724	37, 945	26, 791	37, 694
February	113, 902	142, 079	136, 023	171, 297	25, 658	31, 348	27, 850	31, 853
March	175, 705	227, 461	220, 872	252, 425	42, 174	49, 838	45, 534	49, 139
April	175, 087	219, 139	256, 414	257, 965	42, 267	47, 536	51, 453	51, 756
May	168, 217	185, 419	231, 182	236, 640	39, 555	39, 755	48, 101	48, 783
June	136, 313	161, 443	208, 583	224, 771	28, 179	34, 101	42, 988	44, 154
July	124, 171	128, 072	224, 713	177, 646	26, 831	25, 454	48, 081	34, 999
August	126, 831	148, 232	263, 485	213, 624	27, 423	27, 998	52, 096	39, 829
September	111, 906	143, 706	250, 417	219, 910	25, 296	28, 236	46, 790	40, 183
October	173, 042	166, 199	262, 726	218, 982	39, 311	32, 143	52, 238	41, 814
November	158, 953	191, 319	240, 280	223, 305	36, 164	34, 779	50, 309	41, 691
December	147, 689	166, 839	250, 044	199, 483	33, 166	33, 153	48, 280	37, 033

Source: The F. W. Dodge Corporation.

Table 8.—Commercial Buildings: Contracts Awarded in 36 States, by Months

Period	Value (thousands of dollars)				Floor space (thousands of square feet)			
	1923	1924	1925	1926	1923	1924	1925	1926
Year	**512, 914**	**596, 343**	**835, 673**	**880, 102**	**109, 508**	**113, 040**	**151, 062**	**142, 357**
January	36, 332	38, 393	67, 372	67, 514	6, 797	7, 778	10, 919	11, 191
February	34, 698	47, 124	38, 825	65, 319	8, 185	9, 420	7, 467	8, 768
March	51, 233	64, 433	54, 871	104, 113	11, 266	11, 455	11, 772	15, 431
April	53, 826	49, 724	63, 969	87, 895	11, 473	9, 615	12, 261	14, 981
May	59, 510	56, 380	80, 280	63, 006	11, 718	11, 232	14, 183	12, 045
June	44, 727	56, 556	92, 152	66, 064	9, 597	9, 308	13, 713	12, 015
July	40, 875	49, 346	67, 166	65, 347	8, 457	8, 993	13, 153	10, 704
August	37, 457	41, 151	105, 849	78, 236	8, 484	8, 361	17, 295	12, 438
September	44, 142	43, 316	80, 172	95, 352	8, 499	8, 751	13, 262	14, 171
October	35, 133	55, 969	55, 912	61, 219	8, 786	9, 664	12, 228	11, 141
November	32, 594	55, 255	61, 336	56, 403	7, 689	10, 038	11, 421	9, 616
December	42, 388	38, 696	67, 770	69, 634	8, 558	8, 424	13, 389	9, 856

Source: The F. W. Dodge Corporation.

Commercial Buildings.

Commercial or business buildings contracted for in 1926 increased more than 5 per cent in value and decreased 6 per cent in square feet of floor space involved. The 18,700 such projects in 1926 averaged about 7,600 square feet of floor space and $47,000 in value, compared with 8,500 square feet and $47,000, respectively, in 1925. The trend of commercial building construction continued to be the subject of a great deal of discussion. Surveys in individual cities were adduced to show overbuilding of office space in certain cases; it was maintained, on the other hand, that the desire of occupants to leave obsolete buildings should assure a continual demand for space in the newer and improved type of structures.

Industrial Buildings.

The increase of 40 per cent in value and 16 per cent in floor space of industrial buildings contracted for in 1926 compared with 1925 was one of the notable features of the year. Both value and the square feet of floor space was greater than in any other year since 1920. Direct comparisons of floor space between periods are not fully representative, as may be illustrated by the fact that a contract involving about $50,000,000 for a power plant in the New York district in January, 1926, affected the figures for value very much more than those for floor space. The 5,486 industrial-building projects in 1926 averaged 14,400 square feet of floor space and $119,000 in value.

The Engineering News-Record reported $312,000,000 worth of contracts for industrial buildings (valued at more than $40,000 each) in 1926, a 37 per cent increase over the $228,000,000 reported in 1925, and the largest total since 1920. (Table 11.) The construction represented partly expansion of plant facilities and partly replacement of obsolete structures or adaptation of existing buildings to improved technical processes. No standards are available to show what increment of new industrial building should be considered normal. It is certain that in recent years manufacturing industries in general have maintained plant facilities to take care of the increased volume of production required, and there has not been the overbuilding that was prevalent in 1919 and 1920.

Table 9.—Industrial Buildings: Contracts Awarded in 36 States, by months

Period	Value (thousands of dollars)				Floor space (thousands of square feet)			
	1923	1924	1925	1926	1923	1924	1925	1926
Year	**443, 186**	**355, 269**	**462, 741**	**651, 106**	**73, 421**	**50, 033**	**67, 478**	**78, 790**
January	23, 152	24, 769	19, 454	94, 415	4, 765	3, 795	4, 335	7, 245
February	40, 275	19, 060	20, 767	39, 087	6, 580	4, 096	3, 308	5, 256
March	41, 803	21, 763	53, 133	47, 776	8, 773	4, 744	4, 836	7, 033
April	33, 335	56, 361	46, 568	41, 524	7, 397	4, 994	6, 496	5, 277
May	62, 979	28, 901	27, 562	44, 560	11, 667	4, 625	5, 278	6, 785
June	55, 867	24, 968	25, 161	53, 725	6, 319	3, 294	3, 973	5, 610
July	26, 019	19, 664	58, 148	59, 703	4, 557	3, 017	5, 643	9, 209
August	19, 359	30, 380	22, 693	64, 049	3, 798	3, 967	4, 773	6, 918
September	38, 059	35, 222	43, 298	48, 836	4, 392	4, 216	8, 643	6, 290
October	32, 721	29, 033	63, 316	45, 740	4, 205	4, 478	7, 231	6, 613
November	44, 457	34, 373	53, 309	64, 552	5, 907	4, 101	7, 758	6, 613
December	25, 160	30, 776	29, 332	47, 140	5, 063	4, 705	5, 204	5, 941

Source: The F. W. Dodge Corporation.

Public Works and Public Utilities.

Contracts for public works and public utilities in 36 States reported by The F. W. Dodge Corporation, amounted to $1,063,000,000 compared with $886,000,000 in 1925. (Table 10.) The Engineering News-Record reported contracts awarded in the country as a whole for engineering construction other than buildings, most of which falls under the heading of public works and utilities, amounting to $1,055,000,000 compared with $957,000,000 in 1925. (Table 11.) Next to Federal Government contracts, which increased 47 per cent, the largest increases were shown by sewers, bridges, and streets and roads. Waterworks showed a decline of 11 per cent, and contracts for excavation, drainage, and irrigation decreased 31 per cent. Completion of the Philadelphia-Camden suspension bridge, junction of the headings in the New York-New Jersey vehicular tunnel, and advancement of several other large bridge-building projects, were a feature of the year. The construction of 1,005 miles of new railway line was completed, the largest program completed in any year since 1916. Of the year's total, 242 miles were in Texas and 233 in Florida.

Although construction of and contracts let for new highways were at record levels, the number of miles of Federal aid highways completed during the year dropped to 9,400 compared with 10,300 in 1925. There were under construction at the close of the year 10,050 miles under the Federal aid program compared with 11,000 at the end of 1925, and 13,300 at the end of 1924. The Bureau of Public Roads estimated that total expenditures for rural road purposes, including new construction and maintenance, amounts to more than $1,000,000,000 annually.

The Census Bureau reports that 247 cities each with more than 30,000 population, expended in 1925 more than $317,000,000 on new outlays for streets, roads, alleys, bridges, and other highway structures within their latest fiscal year periods.

The Portland Cement Association reported that in 1926 contracts were let for 107,000,000 square yards of concrete pavement which was 3 per cent more than in 1925, and was about one-third more than in 1923. Of the total, 61,000,000 square yards, or about 57 per cent, were in rural districts which was somewhat less than in the preceding year.

Table 10.—Public Works and Public Utilities: Contracts Awarded in 36 States, by months

[Thousands of dollars]

Period	1923	1924	1925	1926
Year	**665, 473**	**723, 911**	**885, 732**	**1, 063, 239**
January	28, 642	28, 381	35, 462	52, 761
February	38, 893	37, 956	52, 865	64, 728
March	48, 192	44, 895	67, 931	97, 283
April	67, 228	88, 841	95, 432	76, 940
May	83, 817	68, 708	77, 759	92, 335
June	75, 596	71, 784	92, 916	91, 809
July	65, 159	71, 717	72, 743	109, 436
August	62, 664	65, 296	96, 000	119, 078
September	55, 011	52, 034	79, 668	90, 652
October	63, 499	101, 224	66, 007	100, 512
November	36, 237	57, 455	57, 035	49, 122
December	40, 536	35, 620	91, 913	118, 583

Source: The F. W. Dodge Corporation.

Table 11.—Engineering Construction: Contracts Awarded in the United States

Note.—Minimum costs of projects included in this table are as follows: Waterworks, excavation, dredging and irrigation $15,000; other public works, $25,000; industrial buildings, $40,000; commercial buildings (including hotels, apartments, schools, hospitals, and certain other classes of buildings) $150,000.

[Value in thousands of dollars]

Class	1913	1920	1921	1922	1923	1924	1925	1926	1926 per cent change from 1925
Total	**495, 542**	**1, 582, 013**	**1, 231, 371**	**1, 556, 550**	**1, 899, 254**	**2, 002, 533**	**2, 559, 443**	**2, 849, 786**	**+11. 3**
Waterworks	24, 373	30, 772	40, 603	36, 220	62, 518	61, 445	69, 368	61, 647	−11. 1
Sewers	26, 906	36, 067	39, 385	43, 584	66, 769	74, 553	84, 577	103, 741	+22. 7
Bridges	23, 290	35, 214	27, 331	43, 477	66, 778	68, 564	69, 876	83, 383	+19. 3
Streets and roads	48, 471	265, 423	315, 351	334, 694	361, 837	415, 216	421, 039	483, 898	+14. 9
Industrial building	49, 104	482, 201	114, 256	198, 141	281, 611	204, 969	227, 616	311, 605	+36. 9
Commercial building	148, 687	581, 325	568, 261	750, 762	813, 392	934, 905	1, 374, 100	1, 482, 946	+7. 9
Excavation, drainage, and irrigation	-------	16, 219	19, 181	19, 551	51, 991	26, 829	40, 080	27, 810	−30. 6
Federal Government	39, 405	35, 282	26, 607	43, 552	47, 940	38, 885	34, 272	50, 262	+46. 7
Unclassified	135, 303	99, 501	60, 396	86, 569	146, 418	177, 167	238, 515	244, 494	+2. 5

Source: Engineering News-Record.

Public Buildings.

The value of public buildings for which contracts were awarded in 36 States increased 17 per cent over 1925 and was well above any other postwar year. It amounted, however, to only $54,800,000. There were reported 840 projects, averaging 7,300 square feet of floor space and $65,000 in value. The Federal Government's building program providing for $165,000,000 to be spent over a 10-year period, $50,000,000 in the District of Columbia, and the remainder outside, has been mapped out. Actual construction under this program will not get fully under way before 1928.

Educational Buildings.

The value and volume of educational building contracts in 1926 for the 36 States each decreased 11 per cent from 1925. The value of $367,000,000 was about the same as in 1924, while the floor space was lower than in any other year since 1923. There were 3,744 projects under this heading, averaging 13,900 square feet of floor space and $98,000 in value.

Table 12.—Educational Buildings: Contracts Awarded in 36 States, by Months

Period	Value (thousands of dollars)				Floor space (thousands of square feet)			
	1923	1924	1925	1926	1923	1924	1925	1926
Year	**320, 621**	**367, 439**	**413, 204**	**367, 059**	**55, 688**	**58, 241**	**58, 700**	**52, 207**
January	16, 862	18, 519	15, 339	12, 736	2, 726	3, 114	2, 371	2, 170
February	27, 668	31, 155	20, 278	19, 214	5, 268	5, 839	3, 809	2, 928
March	26, 966	34, 062	42, 193	28, 576	5, 008	5, 748	5, 557	3, 936
April	39, 803	33, 522	33, 155	37, 245	6, 709	5, 757	5, 203	4, 907
May	30, 453	40, 582	29, 313	37, 188	5, 519	6, 908	4, 623	6, 194
June	26, 410	34, 807	64, 585	38, 845	4, 569	5, 262	9, 002	5, 635
July	31, 445	39, 511	57, 572	40, 874	5, 021	6, 150	7, 645	5, 876
August	25, 861	31, 771	33, 667	40, 906	4, 411	4, 401	5, 246	5, 196
September	16, 369	31, 728	35, 217	32, 953	3, 096	4, 857	4, 744	4, 588
October	26, 085	27, 675	28, 192	23, 076	5, 033	4, 127	3, 937	3, 404
November	24, 273	18, 311	22, 048	33, 535	4, 219	2, 825	3, 157	4, 562
December	28, 428	25, 797	31, 646	21, 912	4, 111	3, 254	3, 047	2, 812

Source: The F. W. Dodge Corporation.

Other Buildings.

Contracts in the 36 States for social and recreational buildings decreased less than 1 per cent in value from the high record total of 1925, and amounted to $242,000,000. There were 2,450 projects of this type recorded, averaging 11,800 square feet of floor space and $98,500 in value, both averages being below the corresponding figures for 1925.

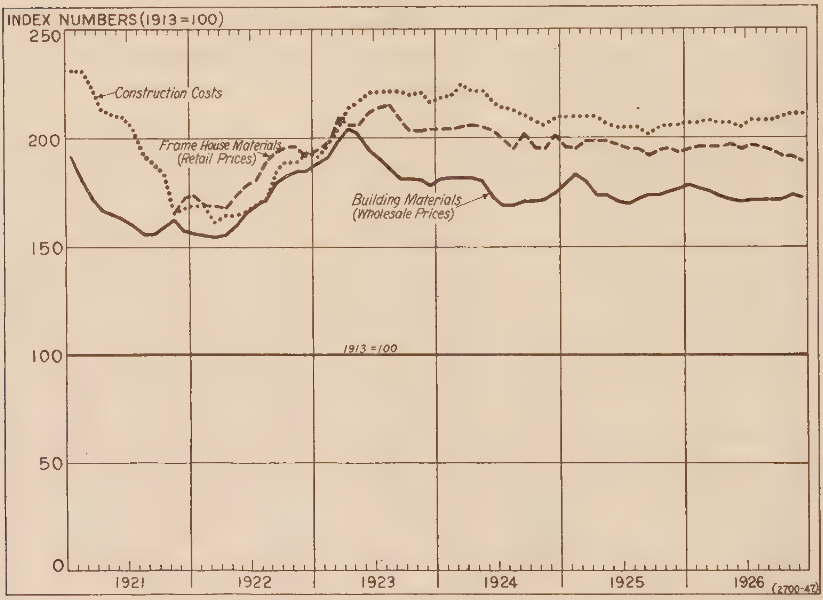
Contracts for religious and memorial buildings declined about 3 per cent in value and 13 per cent in floor space. There were 2,283 projects of this type, averaging 6,800 square feet of floor space and $63,000 in value.

Hospital and institutional building contracts increased 20 per cent in value and 6 per cent in volume, the value being the highest on record, and the volume only 4 per cent under 1924, the record year. There were 934 such projects averaging 15,500 square feet of floor space and $140,000 in value.

BUILDING COSTS

Building costs during 1926 were on about the same level as during 1925, according to indexes of building costs, material prices, and published wage scales in the building trades. Material prices were slightly lower, while building trades wages were perceptibly higher.

Chart V.—INDEX NUMBERS OF BUILDING-MATERIAL PRICES AND CONSTRUCTION COSTS



Figures for contracts awarded showed some rise in average value per square foot of floor space in most types of construction, although some, and possibly all, of these rises may have been owing to changes in type and quality of construction. The wholesale building material price indexes of the Department of Labor averaged 173.4 for the year compared with 175.1 in each of the preceding years. The general all-commodity price index, however, declined from 158.7 to 151.0, but was still above the average of 149.7 for 1924. The Department of Commerce retail price index for frame house materials averaged 194.6 in 1926 compared with 195.4 in 1925, and ranged from a high of 196.9 in May to a low of 189.4 in December.

Since most construction is performed on the basis of contracts let before the work starts, contractors in submitting estimates take into account anticipated changes in cost. Hence, none of the indexes of building costs represents exactly the variations from month to month in cost to individual contractors or owners. An index for less pretentious buildings using cheaper materials and constructed largely with unskilled or semiskilled labor would vary decidedly at times from an index for highly finished structures.

It is common to see marked changes in the cost of building attributed to single factors, such as labor or material costs. But a substantial part of what the owner of a structure must pay goes for the land, contractor's overhead and profit, financing charges during construction, and the architect's and real-estate men's fees, and some of these factors may vary materially from time to time and place to place.

Table 13.—Index Numbers of Building Materials, Prices, and Construction Costs

Year, quarterly average, and month	(1) All commodity index	(1) Wholesale price indexes of—						(2) Construction costs	(3) Factory building costs	(4) Frame house materials, retail prices	(4) Brick house materials, retail prices
		All building materials	Lumber	Brick, common (average 82 yards)	Cement f. o. b. plant near Chicago	Structural steel	All other building materials				
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	--------	100.0	100.0
1914	98.1	92.0	91.6	98.7	91.2	77.8	95.1	88.6	100.0	--------	--------
1915	100.8	94.0	89.4	99.2	96.0	84.7	101.9	92.6	--------	--------	--------
1916	126.8	120.3	102.0	107.7	117.5	167.2	137.1	147.4	--------	--------	--------
1917	177.2	157.0	134.6	131.8	151.5	247.4	171.5	181.2	--------	--------	--------
1918	194.3	172.0	155.4	175.8	164.7	198.6	189.3	189.2	--------	--------	--------
1919	206.4	201.4	210.4	206.3	164.5	166.9	195.4	198.4	--------	--------	--------
1920	226.2	264.1	307.5	278.9	178.3	187.3	218.3	251.3	--------	--------	--------
1921	146.9	165.4	163.5	232.0	164.4	135.3	169.0	201.8	179.0	--------	--------
1922	148.8	168.4	183.4	201.7	159.3	114.8	155.9	174.5	170.0	181.6	185.6
1923	153.7	189.1	206.5	213.5	170.4	160.4	168.8	214.1	202.0	206.6	208.3
1924	149.7	175.1	182.9	212.8	172.3	148.0	166.9	215.4	198.0	201.3	203.4
1925	158.7	175.1	185.4	206.2	170.9	132.5	167.0	206.7	195.0	195.4	196.6
1926	151.0	173.4	185.3	204.8	163.2	129.7	162.9	208.0	197.0	194.6	194.8
1924											
Jan.-Mar	150.9	181.7	192.1	214.8	171.9	165.5	167.6	220.9	200.3	204.5	207.6
Apr.-June	146.6	178.2	187.6	214.5	173.1	156.7	166.4	220.3	200.3	204.6	206.7
July-Sept	148.5	169.6	174.3	211.6	173.1	141.3	165.1	212.9	196.7	198.7	201.1
Oct.-Dec	153.9	172.5	180.5	210.4	170.8	128.6	166.9	207.3	195.7	197.4	198.3
1925											
Jan.-Mar	160.5	180.6	193.6	208.2	172.6	138.0	168.8	210.1	197.0	196.4	198.7
Apr.-June	156.3	172.9	182.3	207.5	173.1	133.5	164.6	207.1	194.0	197.6	198.2
July-Sept	160.0	172.2	180.9	204.5	173.1	129.7	165.6	203.8	194.0	193.8	194.2
Oct.-Dec	157.2	175.5	185.9	204.4	164.8	129.1	167.6	205.8	194.0	194.1	195.3
1926											
Jan	156.0	177.9	191.6	205.5	163.2	129.1	166.0	207.2	195.0	194.7	194.6
Feb	155.0	177.1	191.1	205.6	163.2	129.1	164.8	206.6	195.0	195.6	195.6
Mar	151.5	175.5	189.4	205.7	163.2	129.1	162.9	207.7	195.0	196.2	197.0
Apr	151.1	173.2	186.3	204.9	163.2	129.1	161.1	207.1	199.0	196.3	197.1
May	151.7	171.6	184.4	204.9	163.2	129.1	159.3	207.3	199.0	196.9	197.2
June	152.3	171.2	183.4	204.3	163.2	122.5	161.2	204.8	199.0	195.3	196.0
July	150.7	171.5	181.4	204.3	163.2	129.1	163.4	207.8	199.0	196.8	197.1
Aug	149.2	171.8	180.9	204.7	163.2	129.1	164.8	208.3	198.0	196.0	196.0
Sept	150.5	172.4	182.3	205.0	163.2	132.4	163.7	208.3	197.0	193.8	193.4
Oct	149.7	172.1	181.8	205.0	163.2	132.4	163.6	209.8	197.0	192.3	191.9
Nov	148.1	174.0	186.0	204.1	163.2	132.4	162.9	210.8	197.0	191.6	191.6
Dec	147.2	172.7	184.6	203.9	163.2	132.4	161.3	210.8	197.0	189.4	190.0

Sources: (1) Department of Labor; (2) Lumber, steel, cement, and common labor, Engineering News-Record; (3) Standard factory building, Aberthaw Construction Co.; (4) Retail prices of building material in 45 cities, Department of Commerce.

LABOR

The construction of 1926 was without any outstanding features in regard to building-trades labor. The maximum rate of building activity in many centers was limited during the summer months by the number of skilled workers available, but builders have become accustomed to adjusting their program of work to the available supply of mechanics. The volume of employment appears to have been reasonably well distributed throughout the year, although construction still ranks as a seasonal industry.

Labor Costs.

The rates of wages for building-trades workers as stated in trade agreements showed a somewhat greater number of increases than during the preceding year, and the actual level of wages paid during the year was probably slightly above that paid during 1925. No satisfactory index of labor costs of construction is available. Published wage scales frequently do not represent the wages actually paid, and the productivity of labor, as to which very little information is available, should be taken into consideration in computing a true labor-cost index. Furthermore, the proportion of labor falling to different trades varies greatly on different classes of buildings.

National Board for Jurisdictional Awards. Apprenticeship.

The National Board for Jurisdictional Awards in the building industries, which decides disputes as to the allocation of certain types of work among the building crafts, maintained its position during 1925 despite the refusal of the carpenters to bind themselves to its awards. It is still very effective in reducing jurisdictional strikes.

A dispute of several years standing between the plasterers' and bricklayers' unions as to divisions between the crafts in various regions of the country came to a head during the year and was finally placed in the hands of an impartial arbitrator, whose award was made and accepted in 1927.

The construction industry faces a very difficult problem in the training of competent building-trades workers. The large turnover of labor made necessary by variances in the type and volume of work on hand may make it difficult for a single firm to put apprentices through a regular course of training in the way in which a manufacturing establishment may do. Lack of teachers and teaching material makes it hard for boards of education or other bodies to give suitable classroom work and shop training to supplement that given by employers on the job.

Forms of agreement, however, have been worked out in a number of cases to make the conditions workable from the employer's point of view, at the same time offering apprentices good opportunity for steady work. The Federal Board for Vocational Education, the American Construction Council, several trade associations, and some of the unions are aiding in developing the subject matter and arrangement of courses of training, and have encouraged apprenticeship programs and instruction for semiskilled men in various cities, with an increasing degree of success.

FINANCING

The financing of construction programs totaling $7,000,000,000 a year involves a vast number of transactions about which but little information is available. The sum is within the annual volume of savings of the people of the United States, but very few individuals apply their savings directly to construction. There are families which save money until they have enough to pay for a house and there are corporations which construct new buildings out of surplus funds, but most buildings are paid for, in large measure, with borrowed money.

Mortgage bond companies issued more than $350,000,000 worth of bonds to finance construction in 1926, compared with $400,000,000 in 1925 and about $220,000,000 in 1924, according to reports by the Commercial and Financial Chronicle. Building and loan associations, which devote their resources very largely to lending to home owners, show the following growth in assets during five years: 1922, $3,342,531,000; 1923, $3,942,940,000; 1924, $4,765,937,000; 1925, $5,509,176,000; and 1926, $6,280,000,000 (estimate). The amount of new loans by these associations was above $1,500,000,000 for the year 1926, and the major part of this sum probably went directly or indirectly into financing new construction. Insurance companies' holdings of real estate mortgages, other than on farms, increased approximately $600,000,000 during the year, while the deposits of mutual savings banks, another important source of funds for lending on real estate, have been increasing at the rate of more than $400,000,000 a year.

Hundreds of millions of dollars' worth of roads and other public works are financed each year through State and municipal bond issues, of which about $1,350,000,000 worth were floated during 1926, a smaller amount than in the two preceding years. The tendency in recent years has been for States and municipalities to pay for a larger proportion of the costs of construction from current revenues.

The governments of States, and cities with more than 30,000 population, spent $930,000,000 from current revenues in 1925 for outlays, of which construction forms the major item. Expenditures from current revenues for outlays by the governments of States and by larger cities, for which comparable data are available, has increased rapidly as the following statement shows:

1919	$263, 000, 000
1922	489, 000, 000
1923	540, 000, 000
1924	682, 000, 000
1925	835, 000, 000

The increased volume of new construction during recent years is apparently in reasonable proportion to the growth in savings. The total value of construction reported for 27 States by the F. W. Dodge Corporation increased approximately 109 per cent for the average of the past two years, as compared with the average for 1919 to 1921. The combined increase in building and loan association assets, mutual savings bank deposits, and assets of mutual life insurance companies showed an increase of 106 per cent between the same two periods.

The capital available for investment in buildings has been made much more mobile by the increased volume of lending through mortgage bonds of companies doing business over large areas, and by more widely distributed lending on the part of life insurance companies. A city or region undergoing a rapid development may not only borrow from the outside for putting up new buildings, but by obtaining loans on existing structures from outside may release local capital to carry much or all of the speculative risk in the new enterprises.

The rate of interest at which a new building can be financed has a marked effect on its real cost to the owner. If the rate of interest on a 20-year loan for $10,000 is 5 per cent, the present worth, on a 5 per cent basis, of the 20 annual interest payments of $500 each is $6,231. With 7 per cent interest the present worth of the 20 yearly payments of $700 each would, on the same basis, be $8,724. The 7 per cent loan would therefore be $2,493 more expensive on a present-worth basis, and if the building is worth $20,000, this would be equivalent to adding approximately one-eighth to the construction cost. In cases where second mortgages are involved the computations are more complex, but it is not uncommon to find variations in the cost of financing similar structures that are equivalent to differences of 10 to 20 per cent or more in building costs.

Of course, real estate securities vary in degree of safety, ranging from those based on 50 per cent or less of the conservative valuation of land and building and guaranteed by a company of strong financial position, to securities in which there is a considerable speculative element. It has been urged by some that the financing of new construction has been too easy and has encouraged the undertaking of projects in which there is too great an element of risk; on the other hand, there are complaints that financing charges for new construction of certain types have been, in some cases, unreasonably high. It appears that the facilities for financing the small home buyer, above the amount which he can obtain on first mortgage, are inadequate. The great majority of second mortgages on homes are handled by agencies other than the better-known financial institutions, and there is a large field for constructive development in this direction.

MARKET CONDITIONS

The effective demand for construction at any time is influenced not only by general conditions such as the supply of capital, interest rates, prices, building costs, and the general outlook toward the future, but by special conditions affecting one or more classes of construction. The ratio of rents to building costs for various classes of structures, the earning prospects of owners, the development of rapid-transit facilities in and around cities, the growth or shifting in location of certain industries, the development of transportation and terminal facilities for commodities, and the degree of prosperity of the leading industry in a given region may all have their effect.

The cessation of building of many types during the World War and the irregular operations of the two years following left the country behind in its construction program. In 1921 the accumulated shortage of dwellings was variously estimated as equaling from one to three years' normal construction. The Division of Building and Housing of the Department of Commerce estimates that in the case of houses for families below the middle-income group, this shortage has not yet been wholly made up. Surveys of vacancies in several cities, and indices in a few others of the number of rental advertisements, indicate that for some classes of dwellings and other structures at least, demands are being relatively better met than at any time since the World War.

In any case, however, housing conditions before the war are not an adequate measure of potential demand, in view of the general advance in standards of living. The average family now demands better accommodations than it occupied in 1913; perhaps smaller, but containing more expensive features and equipment. The movement of families in moderate circumstances to more attractive surroundings in the outskirts and suburbs of cities, made accessible by the automobile and various forms of rapid transit, is characteristic. Practically all surveys of housing needs have indicated that the greatest demand at present is for single-family dwellings. Factors influencing the demand for business and industrial buildings have already been discussed.

The strong financial position of prospective builders, both of small-home builders and of big industrial corporations, public utility companies, railroads, and branches of the Government, are powerful factors tending to maintain a substantial volume of building activity.

PROGRESSIVE CONSTRUCTION TENDENCIES

City Planning and Zoning.

Progress in planning of cities and regulating the location of buildings in accordance with a logical scheme in the year 1926 was again notable. The losses from traffic congestion owing to failure to plan street systems with reference to traffic needs, and those arising from the scrapping of physically sound buildings owing to blighting of home and business districts by structures and uses that should be located elsewhere, have impressed on the people of American municipalities the need for comprehensive planning and zoning. The total number of zoned cities, towns, and villages increased to at least 500 by the close of the year. These zoned municipalities comprise more than half the total urban population of the United States. Fifty of the 68 cities which in 1920 had a population of more than 100,000 have zoning ordinances in effect. The legal status of zoning was again in the foreground last year, with several cases carried to the Supreme Court of the United States. The opinion of that court in the so-called Euclid Village case upheld the principles of use, height, and area zoning and was construed as highly favorable to the movement. At least 22 States now have legislations based largely on the Department of Commerce standard State zoning enabling act permitting cities to zone. Regional planning commissions aiming to coordinate the physical development of the entire territory surrounding a city or group of cities came especially to the foreground, and have commenced to issue reports relating, among others, to the regions around New York, Philadelphia, Buffalo, Chicago, and Los Angeles, and Congress established the National Capital Park and Planning Commission to aid in the development of Washington and the suburbs and outlying territory.

Building and Plumbing Codes.

The requirements found in local building codes continue to show a tendency to converge upon common standards, largely because of the scientific and educational activities of various standardizing agencies. While minor variations still appear in recent codes, there is substantial agreement upon the fundamentals. The growing interest in sound requirements has manifested itself in a number of State and regional movements for uniformity, and these have made considerable progress during the current year. More than 70 municipalities have utilized recommended requirements of the Department of Commerce building code committee in preparing ordinances.

The building code committee of the Department of Commerce issued a report on working stresses in building materials which covers reinforced concrete, cast iron, structural steel, and timber. Together with the masonry wall report previously issued, it presents a well-rounded treatment of the subject. It is expected to provide a basis for more economical use of materials without sacrifice of safety. The necessity of skilled design and adequate inspection is emphasized.

Better Building.

Adherence to better standards of quality is recognized by many of the leaders in construction as one of the major problems before the industry. Extensive efforts were made to inform the public with regard to standards of quality and workmanship in the hope of influencing the demand. The movement has the support of a considerable number of large lending institutions which are interested in the durability of the structures on which they loan funds. The American Construction Council is endeavoring to work out means of encouraging builders generally to conform to good standards.

Building Practice and Research.

The subject of heat insulation for houses and other structures has received more and more attention as the possibilities of fuel economy and increased comfort have been more generally appreciated. Methods for comparing various materials assembled into typical house construction have been developed in addition to studies of the characteristics of the materials themselves. The use of the water-cement ratio for mixing concrete of desired ultimate strength has gained in favor and may now be said to be thoroughly established. Acceptance of 18,000 pounds as a basic stress for structura steel has also become quite general. Several severe experiences with hurricanes have focused attention upon the need for buildings which will resist such storms. Inspection of structures which have passed through them indicates that well-designed, well-built, sound construction of any commonly used material is safe. Several significant developments in road construction will tend to greater economy and durability. Paving brick 2½ inches thick was found to be satisfactory under ordinary conditions where 3 or 3½ inches was formerly thought necessary.

The Bureau of Standards has conducted an extended series of tests on the properties of brick masonry, the program including tests on 153 brick walls. It has also made considerable study of the intensity and duration of fires in buildings. Test structures were filled with furniture, automobiles, and other material simulating various classes of occupancy and then burned out. Observations made will prove valuable in determining proper building requirements. Many investigations of building materials were carried on with the cooperation of national trade associations or other groups. At the close of the year 18 bodies were maintaining 34 associate workers at the bureau who were making tests having a direct bearing on building construction or maintenance.

Seasonal Stabilization of Building.

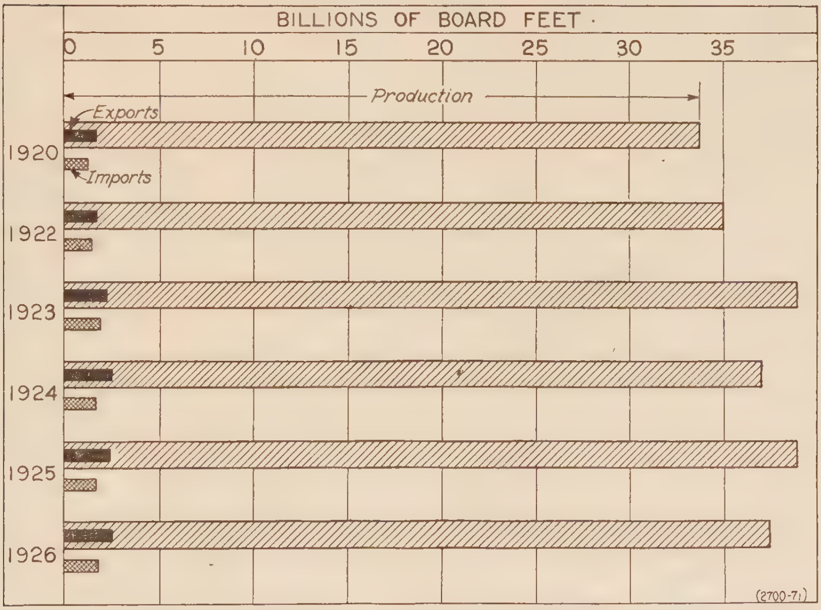
A more even distribution of building activity throughout the year has been one of the most important factors in eliminating waste in the construction industries during the past two or three years. The former condition in which a peak of activity was reached in June or July, which extended only for two, three, or four months, resulted in widespread unemployment among building-trades workers during the remaining months, irregular operations on the part of most building-material manufacturing plants, and an uneven burden on the railroads. The assembling and analysis of facts by the Division of Building and Housing of the Department of Commerce, in cooperation with a committee of business and professional men representing the construction industries, has encouraged owners and contractors to plan their operations so that they will be adjusted to the available supply of labor and materials. Accordingly there has been less tendency among them to bid against each other for the services of workers during the most active period, and a greatly increased amount of construction during the winter, spring, and late autumn months. The movement has been steadily making headway through local programs to stabilize building in various cities, and through presentation of the subject by trade associations, conventions, and the press.

CONSTRUCTION MATERIALS

LUMBER AND AFFILIATED PRODUCTS

SUMMARY.—The estimated production of lumber in the United States in 1926 was 37,500,000,000 board feet, a slightly lower output than in 1925. Both softwood and hardwood prices for the year averaged slightly less than in the preceding year. The movement of west coast lumber into the eastern markets of the United States continued to increase. Total lumber exports were slightly larger in quantity than in 1925, Douglas fir making the chief gain. Exports of hardwood lumber, on the other hand, were slightly smaller. Trade in sawed timber increased by nearly one-third as a result of much larger shipments of Douglas fir to Japan. Exports of logs, ties, and other unmanufactured wood were 20 per cent greater than in 1925.

Chart I.—LUMBER PRODUCTION, EXPORTS, AND IMPORTS



GENERAL POSITION OF THE INDUSTRY

According to the census of manufactures taken in 1925 lumber and its remanufactures ranked eighth among the 16 industry groups in respect to value of products, which reached an aggregate value of $3,689,000,000. This total value of output was about 1.5 per cent more than in 1923 and was very much larger than in any other earlier census year. (Table 1.) The average number of wage earners for the entire industry was slightly smaller in 1925 than in 1923, while there was an increase of about 4 per cent in the horsepower.

The entire decrease in the average number of wage earners and almost the entire increase in the total number of horsepower occurred in the basic industries. Of the basic industries group lumber and timber products is much the most important, having products valued at $1,421,000,000. Table 2 indicates that the value of lumber and timber products in 1925, though smaller than in 1923, was about twice as large as before the war. Both the number of wage earners and the primary horsepower for this industry, however, were smaller than in the pre-war years, although the number of horsepower in prime movers was 6 per cent larger than in 1923.

The furniture industry, including related products, ranks next in importance among the lumber group and in 1925 had a total value of output which exceeded $950,000,000, an increase of 12 per cent as compared with the preceding census year. The value added by manufacture and the total number of wage earners in this industry were also larger than in 1923, but there was a considerable decrease in the amount of horsepower.

Of the other large industries affiliated with lumber, wood reworking showed a slight gain in value of output according to the 1925 census, while the value of production for the wooden-container industries was slightly smaller. The average number of wage earners was slightly larger and the primary horsepower was increased by about one-fifth in the wood reworking industries, whereas both the man power and the machine power employed by the wooden-container industries were smaller than in 1923.

The United States is the largest lumber producing country, and it is estimated that it supplies over one-half of the world's production. Other lumber-producing countries of importance are Canada, Japan, Russia, Finland, Sweden, Norway, Poland, Germany, Rumania, Czechoslovakia, Yugoslavia, and Brazil.

It is estimated that building construction in the United States uses about 60 per cent of our lumber cut. About 11 per cent of the total supply is used by the railroads for ties, timber, and planking. About one-fifth of the total lumber cut is consumed by various manufacturing industries, other than those reworking lumber into building materials, the most important of which is the box and crate industry. The balance, which amounts to slightly less than 8 per cent, is exported.

Table 1.—Lumber and Allied Products

Year and industry	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of product	Value added by manufacture
				In thousands of dollars			
The group as a whole:							
1914	43,452	865,009	3,176,145	446,777	765,573	1,615,780	850,207
1919	41,195	863,937	3,409,654	859,832	1,368,172	3,113,203	1,745,031
1921	21,393	703,309	(1)	670,421	1,197,465	2,456,608	1,259,143
1923	21,674	931,748	3,336,133	962,542	1,666,188	3,633,034	1,966,846
1925	21,922	921,145	3,472,770	978,375	1,724,984	3,688,553	1,963,569
Basic industries:							
1919	27,405	510,254	2,367,953	507,537	487,412	1,445,435	958,023
1921	10,233	392,756	(1)	323,977	386,881	930,015	543,134
1923	10,671	531,545	1,944,962	492,617	584,802	1,534,991	950,188
1925	10,286	504,711	2,064,631	473,085	593,935	1,468,427	874,492
Wood-reworking industries:							
1919	6,309	102,694	469,846	106,747	324,705	558,689	233,984
1921	5,118	91,924	(1)	110,717	298,050	518,386	220,336
1923	4,963	120,239	553,302	151,573	430,991	762,017	331,026
1925	5,527	127,519	659,953	164,482	431,397	778,051	346,654
Wooden-container industries:							
1919	2,803	65,415	185,599	57,774	172,708	290,985	118,277
1921	1,872	51,923	(1)	45,794	125,864	204,779	78,915
1923	1,872	62,121	200,457	58,271	154,804	265,501	110,696
1925	1,762	57,961	192,281	55,671	142,775	249,612	106,837
Furniture and related industries:							
1919	3,873	152,783	288,013	156,121	290,833	639,818	348,985
1921	3,444	134,886	(1)	157,207	278,880	605,990	327,110
1923	3,430	181,946	509,877	222,408	372,338	851,449	479,111
1925	3,597	195,522	434,038	244,789	417,868	950,596	532,728
Miscellaneous and allied industries:							
1919	805	32,791	98,243	31,652	92,514	178,276	85,762
1921	726	31,820	(1)	32,726	107,719	197,438	89,648
1923	738	35,897	127,535	37,673	123,252	219,076	95,824
1925	750	35,432	121,867	40,347	139,009	241,866	102,857
1925 MAJOR INDUSTRIES							
Lumber and timber products	9,207	473,998	2,049,500	456,716	579,475	1,421,162	841,687
Turpentine and rosin	1,007	29,413	3,138	15,190	11,887	42,364	30,477
Planing-mill products not made in planing mills connected with sawmills	4,761	111,329	597,103	146,592	403,227	710,861	307,635
Boxes, wooden, except cigar boxes	824	34,834	143,519	33,765	86,391	152,295	65,903
Cooperage	553	11,483	30,758	12,908	44,176	67,735	23,559
Furniture	3,235	180,895	402,519	225,200	384,508	868,146	483,638
Refrigerators	167	9,360	23,297	12,589	24,744	57,666	32,922
Caskets, coffins, burial cases, etc	326	11,479	29,164	14,057	32,771	70,413	37,641
Wood preserving	131	8,416	33,521	9,606	66,709	91,184	24,475

[1] Not called for in schedules for 1921.

Source: Bureau of the Census.

Table 2.—Lumber and Timber Products Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	23,043	413,257	[1] 1,375,139	$147,951,886	$242,617,767	$555,042,605	$312,424,838
1909	33,090	547,178	[1] 2,316,634	238,866,806	265,559,595	753,388,368	487,828,773
1914 [2]	27,229	479,786	2,190,359	239,976,562	281,951,873	715,310,333	433,358,460
1919 [2]	26,119	480,945	2,355,345	489,419,091	470,960,488	1,387,471,413	916,510,925
1921 [3]	9,092	364,247	(4)	313,486,957	377,927,443	902,501,306	524,573,863
1923 [3]	9,393	495,932	1,932,091	475,962,443	573,063,833	1,494,462,031	921,398,198
1925 [3]	9,207	473,998	2,049,480	456,715,665	579,474,682	1,421,161,836	841,687,154

[1] Figures are not strictly comparable with later years because of the inclusion in these years and the exclusion in later years of data for rented power other than electric.

[2] Exclusive of custom sawmills.

[3] Exclusive of establishments with products under $5,000 each.

[4] Not called for in schedule for 1921.

Source: Bureau of the Census.

Table 3.—Lumber: Quantity and Value of Cut as Reported, and Estimated Total Cut

NOTE.—The enumerations in different years vary somewhat as regards the proportion of the total number of mills actually reporting. The estimates of total cut allow for these differences. Estimated total cut for 1889 not available.

[Quantities in millions of board feet; values in thousands of dollars; average value per 1,000 board feet]

Year	Reported cut	Value	Average value	Year	Reported cut	Value	Average value	Year	Estimated total cut	Year	Estimated total cut
1889	23, 842	$272, 040	$11. 41	1917	35, 831	$728, 091	$20. 32	1899	35, 084	1918	32, 000
1899	35, 078	390, 414	11. 13	1918	31, 890	790, 565	24. 79	1909	44, 510	1919	34, 552
1909	44, 510	684, 560	15. 38	1919	34, 552	1, 043, 818	30. 21	1911	43, 000	1920	33, 799
1911	37, 003	556, 898	15. 05	1920	29, 878	1, 147, 913	38. 42	1912	45, 000	1921	30, 500
1912	39, 158	601, 082	15. 35	1921	26, 961	632, 771	23. 47	1913	44, 000	1922	35, 000
1913	38, 387	----------	(1)	1922	31, 569	825, 526	26. 15	1914	40, 500	1923	39, 000
1914	37, 346	----------	(1)	1923	37, 166	1, 181, 120	31. 78	1915	38, 000	1924	37, 000
1915	37, 012	519, 644	14. 04	1924	35, 931	1, 026, 548	28. 57	1916	40, 000	1925	39, 000
1916	39, 807	609, 847	15. 32	1925	38, 339	1, 074, 249	28. 02	1917	36, 000	1926	37, 500

[1] Not called for in schedule for 1913 and 1914.

Sources: Bureau of the Census, Department of Commerce, and Forest Service, Department of Agriculture; estimated total cut for certain years based on National Lumber Manufacturers' Association data.

Table 4.—Reported Lumber Cut, by Regions

[In millions of board feet. See also headnote to Table 3]

Year	Total	Northeastern States	Central States	Lake States	Southern States	Rocky Mountain States	Pacific States[1]	All other States
1889	23, 842	4, 726	3, 130	8, 251	4, 847	249	2, 028	612
1899	35, 078	5, 709	5, 643	8, 750	11, 116	556	2, 901	401
1909	44, 510	5, 197	5, 487	5, 476	19, 973	1, 292	6, 905	179
1914	37, 346	3, 553	3, 621	3, 918	17, 801	1, 340	7, 067	46
1919	34, 552	2, 584	3, 016	2, 692	16, 079	1, 299	8, 798	85
1920[2]	33, 799	2, 198	2, 735	2, 386	14, 362	1, 699	10, 355	64
1921	26, 961	1, 797	1, 647	1, 784	13, 530	952	7, 204	46
1922	31, 569	1, 423	1, 762	1, 944	14, 383	1, 430	10, 581	45
1923	37, 166	1, 631	2, 045	2, 392	16, 461	1, 811	12, 762	63
1924	35, 931	1, 620	2, 036	2, 339	16, 239	1, 699	11, 929	69
1925	38, 339	1, 507	1, 969	2, 445	17, 148	1, 920	13, 287	63
Per cent of total, 1925	100. 0	3. 9	5. 1	6. 4	44. 7	5. 1	34. 6	0. 2

[1] Cut for Nevada included under "All other States" for 1909, 1914, 1919, and 1921.

[2] Estimated total cut; partial returns reported 29,878,000,000 board feet.

Sources: Bureau of the Census, Department of Commerce, and Forest Service, Department of Agriculture.

PRODUCTION AND VOLUME OF SHIPMENTS

Production.

According to preliminary estimates the 1926 production of lumber was about 37,500,000,000 board feet as compared with 39,000,000,000 board feet in 1925. About 45 per cent of the total output is produced in the South and approximately 35 per cent on the Pacific coast. Nearly five-sixths of our production consists of softwoods, of which southern pine and Douglas fir are the leading species. Oak, gum, and maple are the most important hardwoods. The output of oak flooring in 1926, according to trade association returns, continued to increase and was the largest of any year on record. Maple flooring production has also been expanding, and in 1926 was about 16 per cent larger than in 1924.

Table 5.—Lumber Production (Reported Cut), by Principal Kinds of Woods

NOTE.—Figures for 1920 are computed totals from partial returns, and for 1919 represent practically complete returns; for other years, as reported by operators and somewhat incomplete. (See Table 3.)

[In millions of board feet]

Kind	1913	1919	1920	1921	1922	1923	1924	1925
Total, all species	**38, 387**	**34, 552**	**33, 799**	**26, 961**	**31, 569**	**37, 166**	**35, 931**	**38, 339**
Softwoods (total)	**30, 303**	**27, 407**	**26, 810**	**22, 186**	**26, 644**	**30, 904**	**29, 406**	**31, 710**
Southern pine	14, 839	13, 063	11, 091	10, 960	11, 501	12, 949	12, 487	13, 236
Douglas fir	5, 556	5, 902	6, 960	4, 642	6, 832	8, 223	7, 462	8, 154
Western pine	1, 259	1, 755	2, 290	1, 432	2, 081	2, 805	2, 603	3, 127
Hemlock	2, 320	1, 755	1, 850	1, 201	1, 535	1, 873	1, 879	2, 140
White pine	2, 569	1, 724	1, 500	1, 274	1, 383	1, 572	1, 531	1, 521
Cypress	1, 097	656	625	771	869	819	877	903
Spruce	1, 047	980	825	629	731	758	717	751
Redwood	510	410	477	468	566	593	604	511
Sugar pine	150	134	146	134	194	229	246	307
Hardwoods (total)	**8, 084**	**7, 145**	**6, 989**	**4, 775**	**4, 925**	**6, 262**	**6, 525**	**6, 628**
Oak	3, 212	2, 708	2, 500	1, 592	1, 605	2, 028	2, 077	2, 129
Gum, red and sap	773	851	850	683	808	1, 016	1, 071	1, 101
Maple	901	857	875	610	640	842	857	922
Birch	379	375	405	319	263	351	382	412
Yellow poplar	620	329	350	235	274	353	351	376
Chestnut	506	546	475	312	311	350	313	308

Sources: Forest Service, Department of Agriculture, and Bureau of the Census, Department of Commerce.

Lumber Transportation.

Loadings of forest products, according to the American Railway Association, totaled 3,654,000 cars in 1926, which is about 2 per cent less than in 1925. Statistics of railroad loadings for these commodities since 1920, which are shown in the following statement, indicate how enormous the volume of shipments has been, particularly during each of the past four years.

	Carloads
1920	1, 553, 000
1921	2, 488, 000
1922	2, 916, 000
1923	3, 745, 000
1924	3, 667, 000
1925	3, 737, 000
1926	3, 654, 000

Quarterly carloadings of forest products for 1924 and 1925, and monthly figures for 1926, are shown in Table 9 in that part of the section on transportation and communications dealing with railway transportation.

Water shipments eastbound through the Panama Canal for the year 1926 amounted to 3,312,000 long tons, an increase of 24 per cent over 1925. These shipments have shown a steady gain in each of the past five years, and in 1926 were over seven times as large as in 1921. These figures include all lumber moving through the canal from our west coast and from British Columbia. Over 90 per cent of the total shipments are bound for the Atlantic coast of the United States, while about 5 per cent are destined for Europe. The remainder is exported to the east coast of South America and to the West Indies.

Water-borne shipments from the Pacific northwest, which include Washington, Oregon, and British Columbia, amounted to

5,560,000,000 board feet in 1926, according to the Pacific Lumber Inspection Bureau. These shipments showed an increase of 14 per cent as compared with 1925 and were almost three times as large as in 1921. (Table 6.) Shipments to the Atlantic coast of the United States, Japan, and South America made notable gains, while shipments to Europe were about one-third smaller than in 1925. In addition to lumber, shipments of logs and bolts to Japan amounted to 313,251,000 board feet in 1926, which was 60 per cent more than in 1925, and was also much larger than in the two preceding years.

Table 6. —Water-Borne Lumber Shipments From the Pacific Coast

[In thousands of board feet]

	1923	1924	1925	1926
From:				
Washington	2, 620, 244	2, 759, 590	3, 055, 698	3, 552, 930
Oregon	1, 133, 750	1, 199, 540	1, 242, 921	1, 294, 391
British Columbia	521, 707	506, 262	577, 560	712, 743
Total	4, 275, 701	4, 465, 392	4, 876, 180	5, 560. 064
To:				
California	1, 812, 235	1, 671, 114	1, 707, 066	1, 686, 747
Atlantic coast	925, 135	1, 264, 854	1, 701, 343	1, 988, 912
Hawaiian Islands	65, 178	68, 972	76, 380	67, 031
Other domestic	15, 870	36, 660	23, 399	23, 094
Japan	861, 774	691, 920	583, 385	903, 093
Australia	236, 994	237, 979	241, 665	277, 125
China	117, 618	192, 688	163, 437	205, 557
Other foreign	240, 897	301, 205	379, 504	408, 505
Total	4, 275, 701	4, 465, 392	4, 876, 180	5, 560, 064

Source: Pacific Lumber Inspection Bureau.

PRICES

Lumber is cut in such a variety of species, sizes, and grades that it is impossible to give briefly detailed data of price movements. General trends are indicated, however, by means of composite weighted averages. (Table 7.) The average composite price of softwoods in 1926 fell only very slightly below that of 1925, and hardwoods showed but a trivial drop. The trend of these prices during 1926, month by month, shows that softwoods opened in January, 1926, a little below the same month for 1925. February and March prices increased slightly, although still below the same months for 1925. April and May were larger than the preceding months of 1926, and were also more than for the same period of 1925. Prices declined in the four following months, reaching the lowest point for the year in September. There was some increase in October, but this was followed by another decline and prices in December were lower than at the end of 1925. Hardwood prices during 1926 were constantly below those for 1925, with the exception of May, June, September, and October.

Table 7.—Composite Monthly Prices of Softwoods and Hardwoods

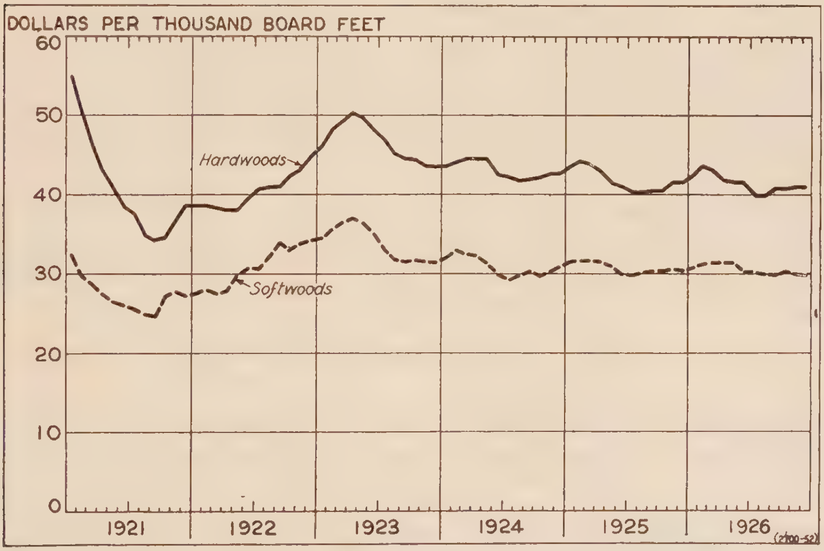
NOTE.—Weighted average covering hardwoods: Maple, birch, beech, basswood, elm, oak, gum, ash, cottonwood, chestnut, poplar, hickory, and walnut; and softwoods: Yellow pine, Douglas fir, North Carolina pine, white pine, hemlock, spruce, and cypress. Average price for softwoods, $48.98 in 1920, for hardwoods 1921 was the first year reported.

[Per thousand board feet]

Month	Softwoods						Hardwoods					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Year	$27.42	$30.79	$33.86	$30.95	$30.71	$30.67	$40.93	$40.33	$46.72	$43.11	$41.80	$41.56
January	32.38	27.67	34.51	31.98	31.44	30.79	54.93	38.69	46.18	43.71	43.49	42.60
February	29.88	27.97	35.53	32.97	31.68	31.32	50.07	38.69	48.30	44.14	44.23	43.79
March	28.78	27.62	36.56	32.44	31.63	31.44	46.61	38.36	49.18	44.46	43.78	43.00
April	27.59	27.80	36.94	32.28	31.41	31.48	43.17	37.98	50.28	44.60	42 92	41.96
May	26.54	29.75	36.47	31.34	30.84	31.46	40.89	37.91	49.78	44.67	41.43	41.70
June	26.14	30.77	35.10	29.97	29.93	30.22	38.48	39.50	48.42	42.53	40.94	41.61
July	25.70	30.75	33.23	29.31	29.85	30.21	37.72	40.72	47.05	42.12	40.22	39.95
August	24.92	32.17	31.84	29.82	30.15	29.93	34.90	40.96	45.35	41.77	40.16	39.95
September	24.89	33.79	31.39	30.27	30.35	29.90	34.29	40.99	44.58	41.90	40.58	40.96
October	27.01	33.06	31.69	29.79	30.35	30.28	34.63	42.24	44.37	42.19	40.54	40.93
November	27.78	33.75	31.56	30.21	30.59	29.98	36.70	43.19	43.68	42.59	41.67	41.15
December	27.37	34.32	31.48	30.96	30.34	29.78	38.76	44.74	43.46	42.63	41.69	41.15

Sources: Bureau of the Census, compiled from weekly data published in the "Lumber Manufacturer and Dealer."

Chart II.—COMPOSITE MONTHLY PRICES OF HARDWOODS AND SOFTWOODS



FOREIGN TRADE

Exports.

During the 20 years preceding the World War the annual export of lumber and timber products from the United States rose in value from $25,000,000 to $111,000,000. Exports of lumber products were considerably curtailed during the World War but resumed their growth in 1923. Shipments were very large in the latter part of 1923 and in 1924 on account of the large purchases by Japan following the earthquake. There was a further expansion in exports during both 1925 and 1926.

Table 8.—Exports of Wood and Manufactures Thereof

[All quantities in thousands of board feet, except as specified; values in thousands of dollars]

Item	Quantity				Value		
	1923	1924	1925	1926	1924	1925	1926
Wood and manufactures [1]					145, 139	147, 817	149, 050
Boards, planks, and scantlings	1, 752, 852	1, 906, 344	1, 947, 809	1, 957, 433	78, 630	83, 028	78, 219
Douglas fir	517, 974	623, 525	607, 908	694, 486	15, 790	13, 925	15, 273
Southern pine	652, 410	670, 521	701, 046	581, 564	26, 736	31, 548	25, 780
White, western and sugar pine	44, 323	40, 827	34, 673	32, 038	2, 082	2, 111	1, 991
Redwood	64, 334	34, 371	46, 235	47, 855	2, 419	3, 257	2, 647
Spruce	34, 470	33, 630	27, 701	20, 497	2, 067	1, 595	1, 433
Hemlock	100, 268	135, 678	126, 972	179, 669	3, 576	2, 698	3, 856
Ash	17, 371	19, 923	25, 141	17, 526	1, 449	1, 756	1, 171
Gum	51, 528	52, 714	54, 633	59, 035	2, 502	2, 794	3, 071
Oak	147, 570	172, 830	183, 590	178, 541	11, 495	12, 070	12, 188
Poplar	24, 087	28, 474	30, 644	32, 207	2, 129	2, 202	2, 171
Walnut	6, 195	8, 859	10, 893	8, 522	1, 285	1, 508	1, 104
Mahogany	(2)	15, 842	19, 002	17, 955	2, 329	2, 694	2, 697
All other	92, 322	69, 150	79, 371	87, 538	4, 771	4, 869	4, 837
Timber, sawed [3]	615, 333	724, 056	554, 519	737, 497	22, 474	15, 935	18, 428
Southern pine	170, 838	174, 758	154, 467	122, 989	6, 738	6, 354	4, 961
Douglas fir	377, 752	485, 120	340, 742	555, 674	12, 831	7, 309	11, 499
Cedar	35, 808	31, 432	35, 581	27, 955	1, 667	1, 438	1, 025
All other	30, 935	32, 746	23, 729	30, 879	1, 238	834	942
Cedar logs	82, 103	104, 460	107, 790	138, 463	3, 102	3, 120	3, 595
Other logs and hewn timber [4]	54, 444	39, 689	53, 743	104, 532	1, 926	2, 286	2, 492
Railroad ties (thousands)	2, 904	2, 471	3, 105	3, 761	2, 551	2, 975	3, 508
Cooperage staves (thousands)	64, 187	69, 608	81, 928	67, 567	4, 414	4, 828	4, 136
Cooperage shooks (thousand sets)	1, 827	1, 839	1, 935	2, 132	4, 015	4, 242	4, 594
Box shooks	87, 080	103, 438	97, 015	120, 631	4, 063	3, 738	4, 425
Veneers (thousand square feet)	58, 324	53, 511	56, 930	72, 173	1, 638	1, 571	1, 869
Plywood (thousand square feet)			17, 562	19, 141		691	753
Doors, sash, and blinds (thousand pounds)	22, 643						
Doors (thousands)		580	1, 371	1, 825	1, 325	2, 700	3, 351
Sash and blinds (thousands)		33	61	53	115	118	126
Handles for agricultural implements (thousand pounds)	28, 352	27, 290	30, 663	[5] 300	2, 158	2, 386	454
Handles for tools (thousand pounds)				[5] 1, 353			1, 796
Furniture					2, 895	2, 795	3, 071
All other [1]					15, 835	17, 403	18, 232

Calendar year	Total value	Calendar year	Total value	Calendar year	Total value
1891–1895	27, 225	1916–1920	108, 323	1922	99, 611
1896–1900	42, 494	1921–1925	126, 124	1923	147, 536
1901–1905	57, 085	1919	136, 802	1924	145, 139
1906–1910	78, 576	1920	186, 502	1925	147, 817
1911–1915	89, 368	1921	90, 515	1926	149, 050

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[1] Includes wood pulp and incubators and brooders, which items have been classified under paper base stocks, and agricultural machinery and implements, respectively, since Jan. 1, 1922, and pulp wood which also has been included with paper base stocks beginning Jan. 1, 1926, but have been included in this table for comparison purposes.

[2] Included with "all other," not separately reported.

[3] Includes hewn timber prior to 1925.

[4] Includes round timber prior to 1925.

[5] Quantity for 1926 reported in thousands of dozens.

Source: Bureau of Foreign and Domestic Commerce.

Total value of exports of wood and manufactures in 1926 amounted to slightly more than $149,000,000, an increase of about 1 per cent in value, as compared with 1925. The quantity of lumber exported showed a considerably greater gain during the past year than is indicated by the value figures. (Table 8.) Exports of sawed timber were about one-third larger than in 1925, and there were also pronounced gains in our shipments of logs and hewn timber, box shooks, and veneers. Exports of boards, planks, and scantlings were slightly larger than in 1925.

Distribution of Exports.

The United Kingdom and Japan are the principal foreign purchasers of American lumber as is indicated in Table 9. Exports to each of them amounted to slightly in excess of $20,000,000 in 1926. The quantity of exports to Japan, however, is almost three times as large as those to the United Kingdom, as most of the trade consists of Douglas fir lumber. Exports to Japan during the past year aggregated 919,000,000 board feet, being substantially larger than in the preceding year. Douglas fir and cedar were the principal species shipped and over 43 per cent of the total was in the form of sawed timber. Japan is also the largest purchaser of softwood logs and bolts. Other important markets for softwood in 1926 were Australia, New Zealand, Argentina, China, the United Kingdom, Cuba, and Mexico. Of these markets Australia, New Zealand, and China were the only ones to show increases in 1926.

Hardwood exports declined about 6 per cent in volume compared with 1925, totaling 366,791,000 board feet. Exports to the United Kingdom, which amounted to about one-half the total, declined during the past year on account of the general depression in that country resulting from the coal stoppage, but purchases of Canada, the second most important market, increased substantially.

Table 9.—Destination of Principal Export Woods From the United States, 1926

NOTE.—The total exports of cedar lumber, logs, and timber in 1926 amounted to 166,418,000 board feet; the total exported to Japan amounted to 159,002,000 board feet.

[Combined totals of lumber, timber, and logs, in thousands of board feet]

Country	Total value, all species	Total, all species	Douglas fir	Southern pine	Oak [1]	Hemlock [2]	Gum [2]	Red wood [2]	Other species [3]
Total	**$102,733,349**	**2,936,883**	**1,278,120**	**717,893**	**179,057**	**179,669**	**59,035**	**47,855**	**308,836**
Japan	20,536,763	919,382	530,821	295	--------	145,922	100	5	83,237
United Kingdom	20,625,372	326,456	22,014	97,335	97,559	207	20,184	349	88,302
Australia	7,309,518	265,635	205,029	784	64	11,175	13	32,802	13,662
Argentina	8,150,043	189,678	31,614	140,520	8,570	3,266	--------	58	5,650
Cuba	3,901,761	121,380	20,920	93,368	3	1,050	385	2,352	3,302
China	3,807,241	205,403	194,360	--------	--------	4,465	--------	--------	6,578
Canada	9,783,353	185,628	13,377	34,796	43,195	10,433	19,645	469	63,167
Mexico	3,966,497	109,967	35,931	56,570	1,190	47	216	3,000	12,843
Netherlands	2,961,158	61,632	17,931	35,991	5,515	204	370	90	1,456
Germany	2,119,970	33,828	5,564	21,031	1,864	100	338	--------	4,339
Italy	2,239,712	51,544	1,993	40,094	74	--------	7,943	--------	1,440
Spain	1,887,968	42,956	914	34,118	3,309	--------	4,014	30	556
Belgium	1,356,311	25,121	1,344	13,430	8,412	--------	564	75	1,101
Chile	717,675	34,743	34,172	213	116	--------	--------	3	89
British South Africa	1,210,429	28,196	10,175	8,006	3,033	--------	496	134	6,352
Other countries	12,159,578	335,334	151,961	141,342	6,153	2,800	4,767	8,488	16,762

[1] Oak logs and hewn timber are included in "Other species."
[2] Logs and timber are included in "Other species."
[3] Also includes Cedar lumber.

Source: Bureau of Foreign and Domestic Commerce.

Imports.

Imports of wood and manufactures into the United States were valued at $102,000,000 in 1926. (Table 10.) Of this total the value of sawmill products was $75,000,000 and that of logs, ties, and poles amounted to $14,000,000. Imports of softwood lumber, which practically all come from Canada, reached a value of about $49,000,000 and amounted to 1,750,000,000 board feet in 1926, a larger amount than in the preceding year. Mahogany and other cabinet wood logs were imported in about the same quantity as in 1925, except Spanish cedar logs, which showed a marked decline. Hardwood lumber imports exclusive of cabinet woods were substantially larger than in 1925 both in quantity and value. Imports of cork, which is entering into insulated construction at an unprecedented rate and is being largely used in refrigerator insulation, were about 90 per cent larger than in 1925.

Table 10.—Principal Imports of Lumber, Logs, and Timber

[Quantity in thousands of board feet, except laths and shingles, which are in thousands; value in thousands of dollars]

Class	Quantity				Value			
	1923	1924	1925	1926	1923	1924	1925	1926
Cabinet woods, unmanufactured:								
Cedar, Spanish	13, 245	7, 420	9, 965	5, 878	784	480	625	371
Mahogany	51, 348	54, 623	73, 224	74, 851	4, 280	4, 862	5, 767	5, 309
Other logs and timber	216, 267	242, 665	221, 000	186, 928	4, 755	5, 075	4, 684	4, 185
Boards, planks, and other lumber:								
Softwoods	1, 868, 375	1, 656, 501	1, 734, 807	1, 776, 505	57, 011	48, 333	50, 431	48, 776
Hardwoods	90, 959	66, 355	80, 272	91, 545	5, 194	3, 534	4, 624	4, 998
Sawed cabinet woods	11, 698	19, 706	31, 319	31, 121	728	1, 127	1, 759	1, 589
Laths	1, 539	1, 675	1, 969	1, 832	9, 332	10, 152	10, 608	9, 748
Shingles	2, 580	2, 568	2, 513	2, 492	9, 812	9, 328	9, 992	8, 907

Source: Bureau of Foreign and Domestic Commerce.

INTERNATIONAL LUMBER TRADE

The principal features of the international lumber trade during 1926 were Japan's large purchases from the United States and Canada; the increase in ocean freight rates in the fall months, which caused a decrease in shipments and an advance in prices; the reduction of the Brazilian pine exports to the River Plate countries, which was accompanied by large rates of increase in exports of Douglas fir and western hemlock from the United States to that region; the strengthening of prices in northeastern Europe, resulting from an agreement between the Swedes, Finns, and Russians; and the large expansion of sales of Finnish and Swedish lumber during the last quarter of the year.

Table 11.—Comparative Lumber and Sawed Timber Exports of the United States and Canada

[In millions and tenths of millions of board feet. Totals include species not shown separately. See head note to Table 12]

Class	1920	1921	1922	1923	1924	1925	1926
Exports from United States:							
All species	1, 722. 1	1, 340. 3	1, 881. 8	2, 368. 2	2, 630. 4	2, 502. 3	2, 694. 9
All hardwoods	218. 4	147. 5	250. 1	310. 7	339. 5	365. 6	355. 2
All softwoods	1, 503. 7	1, 192. 8	1, 631. 8	2, 057. 5	2, 290. 9	2, 136. 7	2, 339. 8
Pine	931. 8	538. 2	659. 8	867. 6	886. 1	890. 2	735. 3
Spruce	21. 9	7. 2	35. 2	34. 5	33. 6	27. 7	20. 5
Douglas fir	451. 2	455. 2	787. 2	895. 7	1, 108. 6	948. 7	1, 250. 2
Exports from Canada:							
All species	1, 967. 6	1, 079. 3	2, 048. 7	2, 515. 5	2, 179. 7	2, 273. 8	2, 249. 1
Pine	530. 7	290. 0	466. 7	528. 0	418. 8	468. 2	444. 0
Spruce	1, 029. 9	544. 7	1, 075. 5	1, 126. 7	927. 7	988. 0	856. 5
Douglas fir	143. 6	156. 9	319. 3	533. 2	532. 6	535. 0	657. 6
Exports from Canada to United States:							
All species	1, 311. 0	811. 4	1, 557. 5	1, 938. 2	1, 670. 6	1, 819. 1	1, 776. 9
Pine	425. 1	243. 9	415. 6	462. 5	353. 5	406. 4	394. 3
Spruce	601. 2	445. 4	822. 2	876. 2	753. 3	810. 4	747. 5
Douglas fir	72. 1	50. 3	181. 6	334. 0	324. 8	376. 3	401. 2

Sources: Bureau of Foreign and Domestic Commerce and Monthly Trade Returns of Canada.

Canadian exports of lumber during the year totaled 2,249,000,000 board feet, which was slightly less than in 1925. (Table 11.) Exports from Finland and Poland increased, and there was also a slight gain in exports from Norway, although there was a decline in Norwegian exports of planed lumber. Exports from Sweden declined in 1926 and were smaller than in either of the four preceding years. (Table 12.) France during the early fall of 1926 began a movement to restrict exports of sawmill material with the purpose of benefiting the French industry. Russian production for export decreased in 1926 as the domestic demand was appreciably greater.

Table 12.—Foreign Lumber Trade of United States, Canada, Sweden, Finland, and Norway

Note.—Data in general represent combined total lumber and sawed timbers, excluding logs, ties, poles, laths, shingles, etc. In some minor aspects the figures for different countries lack comparability. Box shooks and mill ends are excluded where separated in the trade returns.

Calendar year	United States		Canada, exports	Sweden, exports	Finland, exports	Norway, exports [1]
	Exports	Imports				
	M feet	*M feet*	*M feet*	*M feet*	*M feet*	*M feet*
1920	1, 722, 136	1, 350, 799	1, 967, 630	1, 879, 468	1, 368, 657	234, 260
1921	1, 340, 271	839, 288	1, 079, 330	1, 038, 502	1, 356, 341	102, 276
1922	1, 881, 836	1, 563, 524	2, 048, 691	1, 991, 261	1, 600, 150	254, 934
1923	2, 368, 185	1, 971, 032	2, 515, 481	1, 774, 472	1, 690, 563	190, 936
1924	2, 630, 400	1, 742, 562	2, 179, 698	1, 755, 773	1, 942, 363	180, 867
1925	2, 502, 328	1, 846, 398	2, 273, 842	1, 889, 418	2, 001, 035	222, 175
1926	2, 694, 930	1, 899, 123	2, 249, 067	1, 728, 580	2, 129, 600	224, 968

[1] Sawed wood only.

Sources: Bureau of Foreign and Domestic Commerce, and trade returns of the respective countries.

OTHER FOREST PRODUCTS

Many other products in addition to lumber are derived from our forests. According to the Department of Agriculture about

9,500,000,000 cubic feet of wood are removed annually from forests for fuel which is about 13 per cent more than goes into dwellings and other building. Pulpwood and naval stores are also very important forest products. The statistics for the former are given in the paper section, while turpentine and rosin are covered in the chemical section of this yearbook.

Among important wood products are cooperage, ply woods, and veneers, but the only production statistics for these industries are those collected in the biennial census of manufactures. According to the 1925 census the production of laths amounted to 3,161,000,000 pieces and shingle output totaled 7,324,000,000 pieces. Railroads purchased 111,000,000 ties in 1925 as compared with 136,000,000 in 1923. Agriculture is also very dependent on lumber as the farms consume about 40 per cent of the entire output.

PROGRESSIVE TRADE TENDENCIES

National Committee on Wood Utilization.

The National Committee on Wood Utilization was organized by Secretary Hoover following a conference on the utilization of forest products in 1924 and consists of producers, distributers, and consumers of forest products.

The purpose of the committee is the improvement of wood utilization methods. As commercial reforestation is dependent on a satisfactory return, reforestation and utilization are closely allied. The outstanding achievement of the committee during the past year was the publication of a study on the marketing of short-length lumber which has stimulated an increase in the use of short lumber that was hitherto often found unsalable. Other studies have been made upon the subject of end matching of softwood lumber, on the wood chemical industry, on the seasoning and handling of lumber, and on the uses for sawdust and wood flour.

In an endeavor to bring about a close coordination of the woodworking industry with the industries that can profitably use chips, shavings, and mill ends, a survey is being conducted in the State of Virginia to ascertain the location, amount, and kind of this nonutilized raw material. This survey will eventually be extended to cover all States. The present program of the wood utilization committee includes the preparation of a manual on the economics of wood utilization in construction, the encouragement of a continuous supply of chemically treated lumber, a study of the use of preserved mine timbers, the preparation of exhibits of fiber containers which will show the most suitable types for various commodities, the launching of a project to manufacture and market softwood and hardwood lumber in odd-foot lengths, a study of the utilization and economic limitations of little-used species and other fiber materials, and the preparation of wooden container exhibits in order to show the economy involved in their use.

Progress in Simplification.

Because of the wide utilization of lumber, the progress made in 1926 in simplification and standardization was of the utmost significance. The movement for standardization has been accompanied by vigorous grade-marking campaigns. The decision of the hardwood lumber industry to participate in the lumber standardization movement was also of considerable significance. A survey is under way to collect information for use in developing tentative standards to be considered by the industry.

The millwork industry in the northeastern section of the country concentrated its efforts during the year toward standardization of sash, doors, and windows, and also endeavored to arouse nation-wide interest in such a program. The Division of Simplified Practice of the Department of Commerce was asked to cooperate in simplifying other items of wood construction, such as veneer and plywood, containers, and handles for tools.

STONE, CLAY, AND GLASS PRODUCTS

Stone, clay, and glass products is the most representative group of building materials with the exception of lumber and steel. While this group includes some materials, such as pottery, that do not enter directly into construction and others, such as glass and marble, of which only a portion is used in building, the products as a whole find their greatest market in the construction field.

Table 13 indicates that this group in 1925 reported small increases in the number of establishments and the average number of wage earners as compared with 1923, and increases of over 20 per cent in primary horsepower and of 5 per cent in the total value of products. The average amount of wages paid was also slightly higher than in 1923.

Most of the individual products showed increases in 1925 over 1923 in the value of product, glass being the notable exception. As compared to 1923 there was a decrease in the glass industry of 4.1 per cent in the value of product and of 5.2 per cent in the number of workers. The largest increase was in the cement industry which is discussed separately in this section. Wall plaster, wall board, and floor composition showed the next largest increase, in average number of workers and in the value of product. The lime industry had approximately the same number of workers in 1925 as in 1923 but the value of the product increased 7 per cent.

Table 13.—Stone, Clay, and Glass Products

Year and industry	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of product	Value added by manufacture
				In thousands of dollars			
The group as a whole:							
1914	14, 790	335, 824	1, 493, 976	206, 084	240, 817	618, 700	377, 883
1919	12, 599	302, 810	1, 584, 917	332, 725	422, 612	1, 111, 747	689, 135
1921	8, 347	252, 990	(1)	307, 065	428, 257	1, 033, 089	604, 832
1923	8, 317	351, 692	1, 936, 054	453, 567	573, 472	1, 563, 121	989, 648
1925	8, 478	353, 036	2, 348, 157	467, 012	603, 427	1, 640, 652	1, 037, 225
Industries using stone as the chief material:							
1914	9, 485	115, 085	802, 434	74, 315	118, 813	276, 568	157, 755
1919	7, 937	93, 377	791, 801	108, 019	194, 832	456, 097	261, 265
1921	4, 726	84, 191	(1)	109, 473	212, 056	463, 393	251, 337
1923	4, 590	117, 978	1, 071, 210	166, 768	272, 422	695, 052	422, 630
1925	4, 811	122, 898	1, 365, 906	177, 526	299, 555	775, 271	475, 716
Industries using clay or other minerals or earths as chief materials:							
1914	4, 140	134, 986	518, 770	76, 475	62, 831	192, 412	129, 581
1919	3, 489	122, 834	576, 503	128, 205	110, 143	344, 492	234, 349
1921	2, 650	107, 001	(1)	120, 561	109, 275	317, 276	208, 001
1923	2, 765	151, 758	613, 862	185, 980	155, 980	500, 220	344, 240
1925	2, 729	151, 754	700, 775	190, 130	157, 175	506, 530	349, 355
Glass and manufactures of glass:							
1914	1, 165	85, 753	172, 772	55, 294	59, 173	149, 720	90, 547
1919	1, 173	86, 599	216, 613	96, 501	117, 637	311, 158	193, 521
1921	971	61, 798	(1)	77, 031	106, 926	252, 420	145, 494
1923	962	81, 956	250, 982	100, 819	145, 070	367, 848	222, 778
1925	938	78, 384	284, 476	99, 356	146, 697	358, 851	212, 154
1925 MAJOR INDUSTRIES							
Marble, slate, and stone work	2, 356	36, 575	240, 297	59, 593	66, 976	193, 047	126, 071
Lime	283	12, 095	87, 871	14, 002	20, 049	50, 736	30, 687
Cement	145	38, 437	871, 650	53, 912	114, 169	300, 895	186, 726
Wall plaster, wall board, and floor composition	222	10, 978	82, 863	16, 078	39, 553	90, 957	51, 404
Clay products (other than pottery) and nonclay refractories	1, 939	102, 777	517, 204	127, 127	100, 013	333, 730	233, 717
Pottery, including porcelain ware	309	36, 536	50, 141	46, 769	33, 926	111, 078	77, 152
Glass	310	69, 371	271, 639	86, 736	113, 652	295, 959	182, 307

[1] Not called for in schedules for 1921.

Source: Bureau of the Census.

CEMENT

Twelve new establishments for the production of cement were reported in 1925, in addition to the 133 reported in 1923. The new plants in the main have tended to locate near the large consuming centers with resultant economies in distribution costs. Between 1923 and 1925, there was an increase of 9 per cent in the average number of wage earners, 13 per cent in the cost of materials, and 18 per cent in the quantity and 14 per cent in the value of the product.

Production of masonry and of natural and puzzolan cement shows an increase of 30.5 per cent in quantity and of 33.5 per cent in value of product for 1925 as compared with 1923. Marked gains were also shown in the primary horsepower, the number of wage earners, and the average yearly wages as indicated in Table 14.

Table 14.—The Cement Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1909	135	26, 775	371, 799	$15, 319, 662	$29, 343, 791	$63, 205, 455	$33, 861, 664
1914	133	27, 916	490, 402	18, 192, 282	51, 986, 798	101, 756, 444	49, 769, 646
1919	123	25, 524	488, 808	33, 194, 920	79, 509, 800	175, 264, 910	95, 755, 110
1921 [1]	125	26, 231	(2)	34, 415, 677	102, 359, 637	203, 626, 929	101, 267, 292
1923 [1]	133	35, 091	642, 840	49, 707, 992	[3] 100, 766, 747	[3] 264, 098, 497	[3] 163, 331, 750
1925 [1]	145	38, 437	871, 650	53, 911, 519	[3] 114, 168, 969	[3] 300, 895, 070	[3] 186, 726, 101

[1] The figures for 1921, 1923, and 1925, do not include data for establishments reporting products under $5,000.

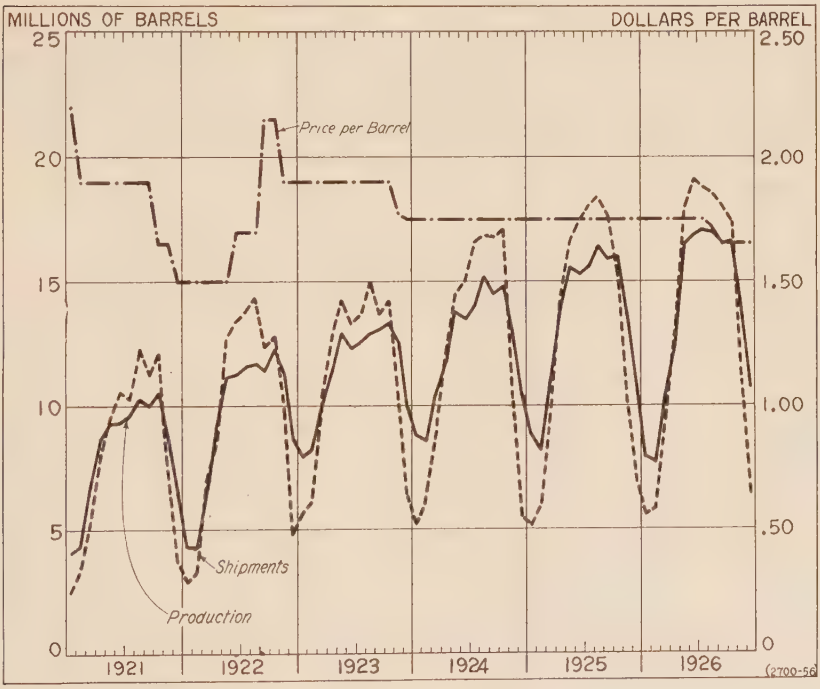
[2] Not called for in schedule for 1921.

[3] Not strictly comparable, for the reason that in the 1923 and 1925 figures the cost or value of containers is excluded, whereas the figures for the earlier years include containers.

Source: Bureau of the Census.

Chart III.—PORTLAND CEMENT: PRODUCTION, SHIPMENTS, AND PRICES

NOTE.—Prices at Lehigh Valley Mills.



Production and Shipments.

Portland cement production in 1926 as in previous years followed closely the trend of construction activity and showed an increase of approximately 1.5 per cent over the 1925 totals, making a new production record. Table 15 shows that the estimated 1926 production of 164,057,000 barrels was 65 per cent greater than in 1921 and was almost twice as large as in years preceding the war.

Table 15.—Portland Cement Production

NOTE.—In early years the production of natural cement, not shown in the table, exceeded that of Portland cement, but it has now become relatively unimportant.

[Quantities in thousands of barrels, 376 pounds net; value in thousands of dollars]

Yearly average or year	Quantity	Value [1]	Average value per barrel [1]	Year	Quantity	Value [1]	Average value per barrel [1]
1881-1885	97	$207	$2.14	1918	71,082	$113,731	$1.60
1886-1890	257	494	1.92	1919	80,778	138,130	1.71
1891-1895	676	1,250	1.85	1920	100,023	202,047	2.02
1896-1900	4,409	6,013	1.36	1921	98,842	187,108	1.89
1901-1905	22,808	23,542	1.03	1922	114,790	202,030	1.76
1906-1910	57,573	54,214	.94	1923	137,460	261,174	1.90
1911-1915	85,442	76,300	.89	1924	149,358	270,338	1.81
1916-1920	87,244	136,105	1.56	1925	161,659	286,136	1.77
1921-1925	132,422	241,357	1.82	1926	[2] 164,057	(3)	(3)
1913	92,097	92,558	1.01				

[1] From 1921 to 1926, inclusive, value and average value per barrel are based upon shipments.
[2] 1926 estimated; subject to revision.
[3] Not available.

Source: Bureau of Mines, Department of Commerce.

Each year since 1921 has seen a new monthly record of production which has been exceeded by six or seven of the months of the following year. In 1926 every month from May through October exceeded the previous monthly record of production and the July total of 17,134,000 barrels was the largest production in any one month to date.

Table 16.—Monthly Production and Shipments of Portland Cement [1]

[Quantities in thousands of barrels]

Month	Production						Shipments			
	1921 [2]	1922	1923	1924	1925	1926 [3]	1923	1924	1925	1926 [3]
January	4,098	4,291	7,990	8,788	8,856	7,887	5,628	5,210	5,162	5,674
February	4,379	4,278	8,210	8,588	8,255	7,731	6,090	5,933	6,015	5,820
March	6,763	6,685	9,880	10,370	11,034	10,390	10,326	8,995	10,279	9,539
April	8,651	9,243	11,359	11,726	13,807	12,440	12,954	12,771	14,394	12,965
May	9,281	11,176	12,910	13,777	15,503	16,510	14,257	14,551	16,735	17,973
June	9,296	11,245	12,382	13,538	15,387	16,866	13,307	15,036	17,501	19,134
July	9,568	11,557	12,620	14,029	15,641	17,134	13,712	16,614	18,131	18,812
August	10,244	11,664	12,967	15,128	16,419	16,995	14,971	16,855	18,383	18,583
September	10,027	11,424	13,109	14,519	15,939	16,571	13,698	16,827	17,711	18,087
October	10,506	12,287	13,350	14,820	15,992	16,596	14,285	17,160	15,309	17,486
November	8,921	11,349	12,603	13,141	13,656	14,193	10,251	10,289	10,187	11,276
December	6,559	8,671	9,997	10,435	10,713	10,744	6,408	5,506	6,917	6,432

[1] This table has been compiled mainly from reports of producers, but includes estimates for one or two plants each month. The sum of the monthly figures therefore only approximates the totals based on final annual returns from the producers.
[2] Based on statistics compiled by the Portland Cement Association.
[3] Estimates, subject to revision.

Source: Bureau of Mines, Department of Commerce.

Shipments of domestic manufactured cement in 1926 are estimated at 161,781,000 barrels, an increase of approximately 3 per cent over the 1925 total. The highest monthly shipments were in June, when 19,134,000 barrels left the mills. The total shipments for the first four months of 1926 were less than in 1925, but from May through

November each month exceeded the shipments in the corresponding month of 1925.

Table 17 compares the consumption of cement by divisions (1925 latest year available). The total given in this table is not comparable with that given in Table 16, which includes exports and shipments to Alaska, Hawaii, and Porto Rico. Increases were shown in 1925 for all districts except one. The large volume of construction that took place in and about New York, Chicago, Florida, and on the Pacific coast in 1925 is evident from the large increases of cement shipped to those centers.

Table 17.—Apparent Consumption of Cement, by Geographic Divisions

NOTE.—The data represent quantities shipped from cement plants to the several divisions.

[In thousands of barrels, 376 pounds net]

Division	1922	1923	1924	1925
Total	**116, 307**	**134, 703**	**145, 062**	**156, 118**
New England	5, 802	6, 179	6, 615	6, 865
Middle Atlantic	28, 846	32, 563	36, 831	40, 504
East North Central	32, 114	38, 688	41, 984	42, 294
West North Central	14, 909	15, 510	14, 736	16, 657
South Atlantic	10, 394	13, 008	13, 616	16, 029
East South Central	3, 523	4, 781	5, 722	6, 105
West South Central	6, 320	7, 326	8, 409	8, 467
Mountain	3, 288	3, 304	3, 301	2, 959
Pacific	11, 051	13, 256	13, 789	16, 179
Unspecified	56	88	60	59

Source: Bureau of Mines, Department of Commerce.

Prices.

The wholesale prices of cement, shown in Table 18, declined in 1926 as compared with 1925. At Chicago the price per barrel remained constant during the year at $1.65 as compared with an average price of $1.73 in 1925. At the Lehigh Valley mills there was a drop of 10 cents per barrel in the closing months of the year which brought the price to $1.65, the same as at Chicago. The average price per barrel during 1926 at the Lehigh Valley mills was $1.71 per barrel.

Table 18.—Prices of Cement at Chicago and Lehigh Valley Mills

[Price per barrel of 376 pounds net]

Year	Chicago	Lehigh Valley
1913	$1. 01	$0. 89
1914	. 92	. 89
1915	. 97	. 79
1916	1. 19	1. 03
1917	1. 53	1. 40
1918	1. 67	1. 75
1919	1. 66	1. 74
1920	1. 80	2. 05
1921	1. 66	1. 85
1922	1. 61	1. 73
1923	1. 72	1. 88
1924	1. 74	1. 75
1925	1. 73	1. 75
1926	1. 65	1. 71

Month	1921	1922	1923	1924	1925	1926
CHICAGO						
January	$1. 93	$1. 50	$1. 60	$1. 72	$1. 74	$1. 65
April	1. 70	1. 50	1. 75	1. 75	1. 75	1. 65
July	1. 70	1. 60	1. 75	1. 75	1. 75	1. 65
October	1. 50	1. 75	1. 75	1. 75	1. 70	1. 65
LEHIGH VALLEY						
January	2. 20	1. 50	1. 90	1. 75	1. 75	1. 75
April	1. 90	1. 50	1. 90	1. 75	1. 75	1. 75
July	1. 90	1. 70	1. 90	1. 75	1. 75	1. 75
October	1. 65	2. 15	1. 90	1. 75	1. 75	1. 65

Source: Bureau of Labor Statistics, Department of Labor.

Foreign Trade.

Imports of cement, shown in the following table in barrels, form only a relatively small percentage of total consumption, and in 1926 for the first time since 1921 imports decreased as compared with the preceding year. For the first eight months there was a considerable increase as compared with 1925, but a sharp drop in the volume imported in the last four months of 1926 brought the total well under that of 1925. More than 70 per cent of our total cement imports in 1926 were from Belgium with Denmark and England next, in the order named. Most of the cement entered through Atlantic customs districts with particularly heavy imports into the Florida and Massachusetts districts. Exports, which are less than one-third as large as imports, also showed a decrease as compared with 1925.

Year	Production	Imports	Exports
1921	98, 842, 049	122, 317	1, 181, 014
1922	114, 789, 984	323, 823	1, 127, 845
1923	137, 460, 238	1, 678, 636	1, 001, 688
1924	149, 358, 109	2, 010, 936	878, 543
1925	161, 658, 901	3, 655, 317	1, 019, 597
1926	164, 057, 000	3, 232, 177	974, 226

STRUCTURAL STEEL

Structural steel enters into use in the framework of buildings, bridges, and other structures. The plain rolled shapes are cut, punched, and riveted together in fabricating shops according to detailed plans from builders. Steel is rolled principally in Pennsylvania, Alabama, and the Lake States, but is usually fabricated in shops close to the place of its use.

Production and Price Movement.

New orders for fabricated structural steel in 1926 amounted to 2,686,700 short tons, a decrease of 7 per cent from 1925, but were greater than for any previous year. Shipments in 1926 were greater than in any earlier year and amounted to 2,835,996 short tons, an increase of 17 per cent over 1925. As new orders precede shipments, it is probably true that the 1926 increase in shipments represents in part some of the large orders placed in the closing months of 1925.

The trend of prices of structural steel (unfabricated) as reported by the Bureau of Labor Statistics during 1926 was slightly upward at the close of the year. The December price for structural shapes per 100 pounds at Pittsburgh was $2, as compared with $1.95 in January and the yearly average of $1.96. As compared with an increase in the general building-material prices of 73 per cent for the year 1926 over 1913, structural steel showed an increase of only 30 per cent.

Table 19.—New Orders for Fabricated Steel

[Quantities in short tons]

Year	New orders	Per cent of capacity	Month	1921	1922	1923	1924	1925	1926
1913	1, 350, 000	50	January	49, 860	118, 400	216, 720	220, 810	184, 240	194, 300
1914	1, 362, 000	50	February	38, 780	130, 240	231, 770	223, 920	190, 820	194, 300
1915	1, 932, 000	70	March	80, 330	227, 920	276, 920	214, 590	220, 430	221, 100
1916	1, 962, 000	69	April	85, 870	245, 680	234, 780	205, 260	250, 040	234, 500
1917	1, 735, 200	60	May	77, 560	227, 920	171, 570	186, 600	223, 720	247, 900
1918	1, 713, 600	56	June	102, 490	210, 160	156, 520	199, 040	279, 650	244, 550
1919	1, 697, 760	53							
1920	1, 756, 080	54							
1921	1, 166, 170	35	July	94, 180	195, 360	153, 510	211, 480	266, 490	231, 150
1922	2, 217, 040	62	August	91, 410	195, 360	174, 580	183, 490	256, 620	268, 000
1923	2, 326, 730	64	September	132, 960	183, 520	159, 530	202, 150	263, 200	197, 650
1924	2, 550, 200	68	October	149, 580	165, 760	150, 500	202, 150	289, 520	214, 400
1925	2, 901, 780	74	November	152, 350	142, 080	162, 540	258, 130	233, 590	204, 350
1926	2, 686, 700	67	December	110, 800	174, 640	237, 790	242, 580	243, 460	234, 500

Source: Bureau of the Census, Survey of Current Business (which lists original sources and method of calculating per cent of capacity).

Foreign Trade.

Exports of structural shapes (not fabricated) amounted to 157,121 long tons in 1926, as compared with 104,339 in 1925, an increase of 51 per cent. The declared value increased by 40 per cent, amounting to $7,655,000 in 1926. Exports of fabricated structural shapes increased 36 per cent in quantity and exceeded $3,000,000 in value.

Imports of structural shapes, fabricated and unfabricated, have shown considerable increases in recent years. The imports in 1924 were 43,245 long tons; in 1925, 77,291 long tons; and in 1926, 121,100 long tons. The value of the imports was almost $4,000,000 in 1926.

BRICK AND OTHER CLAY BUILDING MATERIALS

There was no uniform trend shown in the 1925 census of the burnt-clay building materials. As compared with 1923, however, in 1925 the group as a whole showed a slight increase in production. The number of establishments declined from 1923, but the number of wage earners and the value of the product increased, probably an indication of individual plant expansion or an extension of the usual operating season. The census figures for the industry are given in Table 20.

Table 20.—The Clay-Products Industry

NOTE.—Includes brick, tile, and terra-cotta and fire-clay products. For 1921, 1923, and 1925, establishments reporting products under $5,000 in value were not included.

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1914	3, 239	100, 182	442, 480	$54, 907, 418	$42, 723, 178	$135, 921, 445	$93, 198, 267
1919	2, 414	76, 915	405. 157	78, 256, 085	67, 488, 113	208, 422, 920	140, 934, 807
1921	1, 881	68, 759	(1)	73, 725, 985	68, 275, 905	194, 329, 421	126, 053, 516
1923	1, 983	102, 723	480, 576	123, 773, 001	103, 317, 550	333, 416, 331	230, 098, 781
1925	1, 939	102, 777	517, 204	127, 127, 485	100, 013, 084	333, 730, 417	233, 717, 333

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Complete figures for the industry are not yet available for 1926. Statistics from concerns representing about 30 per cent of the total output of common brick show a decrease of approximately 8 per cent in 1926 shipments. Bookings of manufacturers of over 95 per cent of the architectural terra cotta show a decrease in 1926 of approximately 5 per cent in quantity and value. Production of face brick, as reported by 70 producers, shows a decrease of less than 1 per cent in production and an increase of approximately 1 per cent in shipments. Reports from producers of about 80 per cent of the floor and wall tile show an increase of 20 per cent in the quantity produced and 13 per cent in the quantity shipped.

Table 21.—Production of Principal Burned-Clay Building Materials

Year	Brick (millions)			Value (thousands of dollars)							
				Brick			Architectural terra cotta	Hollow building tile	Tile (not drain)	Sewer pipe	Fire brick
	Common	Vitrified[1]	Face	Common	Vitrified[1]	Face					
1913	8,089	959	828	50,135	12,138	9,614	7,733	8,620	6,109	14,872	16,811
1914	7,147	931	810	43,770	12,501	9,290	6,088	8,385	5,706	14,015	13,476
1915	6,851	953	856	42,145	12,231	9,536	4,796	7,801	5,186	11,259	15,800
1916	7,394	942	1,003	49,357	12,237	11,465	6,466	9,943	6,475	13,577	24.437
1917	5,865	707	758	47,936	10,665	10,391	6.174	13,255	6,821	17,307	42,502
1918	3,557	403	356	38,782	7,145	6,095	2,659	13,037	5,082	15,334	51,648
1919	4,752	489	791	63,585	11,615	16,033	3,988	17,965	8,137	16,755	38,016
1920	4,852	468	787	82,216	12,679	19,441	10,852	27,112	12,470	25,371	53,416
1921	4,448	562	873	57,096	12,870	18,128	9,068	14,841	12,560	22,155	24,833
1922	5,899	517	1,417	72,613	10,816	28,234	12,410	19,708	16,597	23.600	31,357
1923	7,282	699	1,931	94,473	15,570	38,892	16,486	28,275	23,804	29,103	46,677
1924	7,159	554	2,030	86,692	12,974	39,931	16,446	24,998	24,842	32,400	40,621
1925	7,566	539	2,475	88,607	11,876	45,428	19,139	29,275	27,124	30,421	41,164

[1] Vitrified brick or block.

Sources: Bureau of the Census and Bureau of Mines, Department of Commerce.

Production of common brick in 1925, the latest year for which complete statistics are available, amounted to 7,566,000,000 bricks, an increase of approximately 6 per cent over 1924. The value increased from $86,692,000 in 1924 to $88,607,000 in 1925, an increase of only 2 per cent. The average wholesale price of brick at 82 yards as reported by the Bureau of Labor Statistics decreased from $14.46 per thousand in 1923 to $14.01 in 1925. Face brick production established new records in 1925, exceeding 1924 by 22 per cent in quantity and 14 per cent in value. Architectural terra cotta increased 16 per cent in 1925, establishing a new high value, as did hollow building tile, which increased 17 per cent over 1924.

Prices.

Wholesale brick prices varied in 1926, the average for the year increasing in the New York and Chicago districts while at Cincinnati there was a slight decrease. The New York quotation on red common brick in 1926 averaged $16.46 per thousand, an increase compared to $14.70 in 1925 but less than the average for any other year back to 1921. The trend was downward during the year, the average for the last three months of 1926 being $15.50. The Chicago wholesale price of salmon brick in 1926 averaged $8.72 per thousand, an increase over the 1925 average, but was less than for either 1924 or 1923. The prices at 82 yards averaged $13.91 per thousand, a decrease from $14.01 in 1925 and the lowest yearly average with a single exception since 1918.

Table 22.—Wholesale Prices of Common Brick

[Dollars per thousand]

Year	Salmon, Chicago	Red, Cincinnati	Red, New York	Average, 82 yards [1]	Quarter	Salmon, Chicago	Red, Cincinnati	Red, New York	Average, 82 yards
1913	4. 94	7. 00	6. 56	6. 20	1925				
1917	4. 95	8. 44	8. 89	8. 17	January-March	8. 49	13. 00	14. 17	14. 14
1918	7. 45	12. 94	11. 93	10. 90	April-June	8. 66	12. 50	14. 67	14. 10
1919	8. 95	13. 58	15. 96	14. 01	July-September	8. 67	12. 50	15. 21	13. 89
1920	11. 44	17. 47	21. 85	18. 95	October-December	8. 61	12. 50	14. 75	13. 89
1921	9. 33	16. 94	15. 21	15. 76					
1922	8. 71	13. 16	17. 34	13. 70	1926				
1923	8. 76	14. 05	19. 81	14. 51	January-March	8. 58	12. 50	16. 67	13. 96
1924	8. 78	13. 95	17. 04	14. 46	April-June	8. 68	12. 50	17. 00	13. 90
1925	8. 61	12. 63	14. 70	14. 01	July-September	8. 85	12. 50	16. 67	13. 90
1926	8. 72	12. 46	16. 46	13. 91	October-December	8. 78	12. 33	15. 50	13. 88

[1] For the years 1913 to 1918, inclusive, the price quotations were for a varying number of yards.

Source: Bureau of Labor Statistics, Department of Labor.

Foreign Trade.

Imports of building brick, dutiable and free of duty, showed a sharp increase in 1926 as compared with 1925. A total of 116,294,000 bricks were imported in 1926, as compared with the steady decline in imports of brick from a total of over 81,000,000 imported in 1923 to 54,000,000 in 1925. Exports of building brick and hollow tile, which are always very small, decreased in 1926.

GLASS

The glass industry is divided by use of the product into three major groups by the Census Bureau: (1) Building and plate glass, (2) pressed and blown glass, and (3) bottles, jars, etc. Table 23 shows the statistics for the glass industry from 1914 to 1925.

The number of plants, wage earners, and value of the product of the glass industry as a whole decreased in 1925, as compared to 1923. The average number of wage earners in 1925 was less than for any census period since 1914, except the depression year 1921, but measured in dollar value the output per man was greater in 1925 than in any year since 1914.

Measured in actual square feet of product the building and plate-glass group in 1925 shows an increase over 1923, but in value there was a decline as there was for each other class except "All other products." A large percentage of plate glass, estimated at slightly over one-half of the total in 1925, is absorbed by the automobile industry. The increase shown in quantity production has been owing largely to the popularity of the closed type of car which has caused a greater demand in recent years for plate glass by the automobile industry.

Table 23.—Glass Industry

NOTE.—Data for establishments with products under $5,000 in value included for 1919 and 1914, but not for subsequent years.

Year	Establishments	Wage earners (average number)	Horsepower	Wages	Cost of materials	Value of product	Value added by manufacture
1914	348	74, 502	162, 934	$48, 655, 819	$46, 016, 504	$123, 085, 019	$77, 068, 515
1919	371	77, 520	207, 338	87, 526, 625	90, 780, 124	261, 884, 080	171, 103, 956
1921	329	54, 748	(1)	68, 224, 248	86, 036, 406	213, 471, 309	127, 434, 903
1923	333	73, 335	240, 528	89, 897, 948	113, 170, 262	309, 353, 411	196, 183, 149
1925	310	69, 371	271, 639	86, 735, 571	113, 652, 436	295, 959, 424	182, 306, 988

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Table 24 compares the production of plate glass, window glass, obscured, and wire glass in volume and value from 1914 to 1925. For every kind of glass with one exception, there was an actual increase in quantity production from 1923 to 1925, although decreases in the value were shown for three classes. This decrease in the value of glass is confirmed by the wholesale price quotations of the Bureau of Labor Statistics, which show a decline of 22 per cent in the price of plate glass at New York from 1923 to 1925 and a decrease of 14 per cent in the wholesale price of window glass at the works. During 1926 the price of plate glass declined further, while window glass improved, and early in 1927 was slightly above the 1925 average, but still under 1923 prices.

Table 24.—Production of Glass

Class	Quantity (thousands of square feet)				Value (thousands of dollars)			
	1914	1921	1923	1925	1914	1921	1923	1925
Total					**123, 085**	**213, 471**	**309, 353**	**295, 959**
Plate glass:								
Total cast	75, 770	79, 966	124, 780	165, 380				
Polished	60, 384	56, 239	94, 470	117, 369	14, 774	37, 261	66, 103	57, 207
Rough (sold as such or on hand)	131	712	2, 806	4, 215	26	107	501	504
Window glass	400, 999	260, 065	510, 215	567, 151	17, 496	24, 026	42, 623	37, 525
Obscured glass [1]	43, 040	20, 901	46, 376	53, 951	2, 417	2, 547	5, 114	6, 916
Wire glass:								
Polished	1, 708	2, 211	2, 805	4, 165	534	1, 209	1, 652	2, 264
Rough (sold as such or on hand)	13, 981	13, 949	28, 802	28, 743	1, 057	2, 108	3, 882	3, 546
Pressed and blown glass (except bottles and jars)					30, 279	55, 718	77, 279	72, 086
Bottles and jars					51, 959	85, 743	107, 231	100, 301
All other products [2]					4, 543	4, 752	4, 969	15, 611

[1] Includes cathedral and skylight glass, and opalescent sheet glass.

[2] Building glass (other than plate, window, obscured, and wire glass), spectacle glass, boxes, and other containers, etc.

Source: Bureau of the Census.

During 1926 there was an upward trend in imports of glass, although their total value was lower than in 1923. Plate glass increased from 17,257,000 square feet, valued at $7,278,000 in 1925, to 26,664,000 square feet, valued at $8,852,000 in 1926. The value of imports of cylinder, crown, and sheet glass also increased 32 per cent in 1926.

Production of glass in the United States in 1926 was probably at a higher rate than in 1925. Production of polished plate glass which ordinarily forms about one-half of the total value of glass produced (other than jars, containers, etc.) amounted to approximately 128,858,000 square feet, as compared to 117,369,400 square feet in 1925.

BUILDING STONE

Stone serves a variety of uses in construction. It is used as a foundation material, as exterior and interior trim in office and public buildings, and in the construction of many of our monuments, but its largest single construction use is in the form of crushed stone in concrete. The total value of the stone used for construction purposes in 1925 (data for 1926 are not available) amounted to $143,769,000, of which crushed stone amounted to $80,508,000 or approximately 56 per cent.

Table 25.—Production of Stone for Construction Purposes

Class	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1921	1923	1924	1925	1921	1923	1924	1925
Total					**89, 267**	**127, 731**	**134, 745**	**143, 769**
Building stone cubic feet	17, 006	26, 417	28, 352	30, 695	18, 976	32, 023	33, 176	35, 445
Monumental stone do	2, 772	5, 100	4, 751	4, 371	10, 353	16, 130	15, 305	14, 404
Paving blocks number	41, 589	45, 866	41, 038	40, 143	3, 593	4, 003	3, 579	3, 681
Curbing cubic feet	2, 256	3, 228	3, 816	5, 076	1, 860	2, 936	3, 469	4, 313
Flagging do	792	608	810	762	472	422	560	562
Rubble short tons	445	882	865	1, 197	601	1, 298	1, 160	2, 061
Riprap do	1, 814	3, 186	3, 265	3, 079	1, 694	2, 989	3, 634	2, 794
Crushed stone do	43, 203	62, 323	68, 198	75, 673	51, 717	67, 929	73, 862	80, 508

Source: Bureau of Mines, Department of Commerce.

Both the total volume and value of stone produced in 1925 increased as compared with 1924 but the change was not uniform for each particular use. The largest increase was in the classification "Crushed stone," which rose from 68,198,000 short tons, valued at $73,862,000 in 1924, to 75,673,000 short tons, valued at $80,508,000 in 1925. The average price per short ton fell from $1.08 in 1924 to $1.06 in 1925. Stone for use as curbing increased, as compared with 1924, 33 per cent in volume and 24 per cent in value, and smaller increases were shown for building stone and monumental stone.

Granite sold or used by producers in 1925 amounted to $30,531,347, an increase of 6 per cent in value and 17 per cent in quantity over 1924. Its largest uses were as monumental stone, building stone, and crushed stone. Massachusetts led in the number of active plants and value of product, with Vermont and California next in importance. These three States had more than 35 per cent of the total production.

The quantity of limestone sold or used by producers in 1925 amounted to 85,649,000 short tons, valued at $98,000,000, an increase of 13 per cent in quantity and 9 per cent in value over 1925. Over $52,000,000 worth of limestone was used as crushed stone, the next largest uses being as fluxing stone and building stone, with values of $17,318,000 and $16,092,000, respectively. Illinois, as usual, was the leading State in value of the product.

Imports and exports of stone are relatively negligible, exports amounting to less than 1 per cent and imports to approximately 2 per cent of our total production. Canada in 1925 took 73 per cent of our exports and Italy sent us in the same year more than 75 per cent of our total imports.

SAND AND GRAVEL

Total production of building sand and gravel measured either by volume or value increased in 1925, the latest year for which complete statistics are available. Production for all uses, except railroad ballast, increased in 1925 and was higher in volume and value than in any of the preceding four years. The consumption of gravel in railroad work in 1925 was, however, more than twice as great as in either 1921 or 1922 and indicates the large amounts expended by the railroads for maintenance during the last few years.

Building sand increased 9 per cent in volume and 12 per cent in value in 1925, the average value per short ton changing from 57 cents in 1924 to 58 cents in 1925. Building gravel and railroad ballast also increased while paving sand decreased in 1925. The above are values at the plants which are considerably less than the retail prices.

Table 26.—Production of Sand and Gravel

Material	Quantity (thousands of short tons)					Value (thousands of dollars)				
	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925
Building sand	24,566	29.375	39,235	41,376	45,287	16,152	17,575	23,751	23,455	26,306
Paving sand	7,530	10,670	15,632	20,708	24,877	4,753	6,482	9,187	11,595	13,659
Building gravel	14,184	18,686	24,145	30,487	32,759	11,919	14,541	18,368	22,719	24,590
Paving gravel	18,188	17,432	26,174	28,830	32,575	12,365	11,374	17,717	18,774	21,412
Railroad ballast (gravel)	8,949	9,054	22,247	[1]21,341	[1]19,486	2,929	3,233	6,346	[1]6,676	[1]6.392

[1] Includes some gravel used for fills and other purposes by the railroads.

Source: Bureau of Mines, Department of Commerce.

As in previous years exports and imports of building sand and gravel were relatively unimportant, and confined largely to shipments to and from adjacent countries. Of the 534,555 short tons imported in 1925, Canada was the source of 87 per cent which averaged 38 cents a ton in value. Much of this came in as ship ballast.

SIMPLIFICATION OF BUILDING MATERIALS

Up to the present time simplification has progressed to a proportionately greater degree in the case of building materials than for any other group. Simplified practice recommendations are in effect relating to paving brick, asphalt, face and common brick, hollow building tile, structural slate, roofing slate, blackboard slate, asbestos paper and mill board, concrete building units, sand-lime brick, paint and varnish brushes, sidewalk lights, staple vitreous china plumbing fixtures, white glazed tiles, and unglazed ceramic mosaic. Mention is made elsewhere in this publication of simplifications developed in metal building materials, lumber, and other materials. At the close of the year, the Division of Simplified Practice was cooperating with groups who were working toward simplification of sewer pipe, ornamental tile, granite curbstones, china bathroom fixtures, and other construction or building materials.

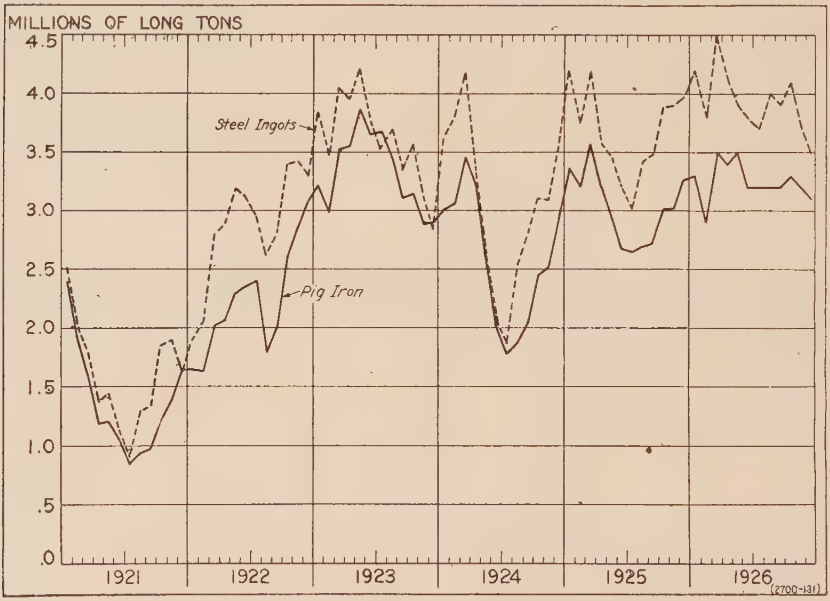
The general adoption of the practice of standardization and the elimination of unnecessary varieties of commodities used in building makes possible economies in manufacture which, passed on to the consumer, mean actual savings in costs of construction.

METALS

IRON AND STEEL

SUMMARY.—Despite some unfavorable predictions at the beginning of the year, the iron and steel industry not only maintained the high level of 1925 but registered further gains in 1926, establishing a new record for production and stability. Shipments of iron ore were 8.2 per cent greater. The production of pig iron, 39,373,000 long tons, was more than 7 per cent above that of 1925, and the production of steel ingots increased about 6 per cent, aggregating 48,250,000 long tons in 1926. The highest average monthly production of pig iron occurred in May and the lowest in December, while for steel ingots the high March level was fairly well maintained until the last month of the year. The production of both pig iron and steel ingots in December was lower than at the close of 1925. The production of all the more important classes of rolled steel was greater in 1926 than in 1925.

Chart I.—MONTHLY PRODUCTION OF PIG IRON AND STEEL INGOTS



Prices of iron and steel products, with the exception of those which remained stationary throughout the year, averaged lower during 1926. There was little material variation from month to month in prices of steel, but pig iron showed a difference of 11 per cent between the high and low monthly average composite prices. The price of basic pig iron at Pittsburgh averaged 5.7 per cent below the 1925 level, while open-hearth steel sheet bars and the composite steel price were about 1 per cent lower than during 1925.

Although imports of iron and steel were greater in 1926 than in any year since 1903, aggregating more than 1,000,000 long tons, exports also increased and were one-fifth greater than in 1925. The United States exported about one-third more heavy iron and steel products to the United Kingdom and Canada than in 1925, while exports to Japan were almost twice as great as the year before.

Great strides were made in the recovery of the iron and steel industry in continental Europe, stimulated by paralysis of the British industry caused by the coal strike, and fostered by the formation in the latter part of the year of a Steel Entente by producers of Germany, France, Belgium, Saar Territory, and Luxemburg.

Table 1.—Iron and Steel Summary

[Thousands of long tons, except prices which represent dollars per long ton]

Item	1910–1914 average	1921	1922	1923	1924	1925	1926	1926—per cent change from 1925
Iron ore shipments	50, 851	26, 653	50, 640	69, 811	52, 083	63, 925	69, 141	+8. 2
Production of:								
Pig iron	26, 996	16, 688	27, 220	40, 361	31, 406	36, 701	39, 373	+7. 3
Steel ingots and castings	27, 167	19, 784	35, 603	44, 944	37, 932	45, 394	48, 294	+6. 4
Average price of:								
Basic pig iron at Pittsburgh	[1] $15. 68	$23. 74	$26. 13	$27. 66	$22. 06	$21. 52	$20. 30	−5. 7
Open-hearth steel sheet bars	[1] $26. 85	$35. 99	$34. 55	$42 53	$39. 68	$36. 38	$36. 04	−. 9
Composite steel products	$35. 08	$56. 72	$49. 73	$61. 33	$58. 44	$55. 22	$54. 63	−1. 1
Total exports	2, 194	2, 213	1, 995	2, 010	1, 806	1, 763	2, 167	+22. 9
Total imports	321	124	719	742	566	933	1, 071	+14. 8

[1] For year 1913.

GENERAL POSITION AND CHARACTER

In the output of iron and steel the United States surpasses all other countries. Our production, representing approximately one-half that of the entire world, is largely consumed in this country. Although very considerable in actual quantity, exports are a small percentage of production. Imports are relatively small. The more elaborated fabrications of iron and steel are treated in the sections of this yearbook relating to machinery, automotive products, farm implements, and construction materials.

The industry is for the most part highly integrated, a single concern usually conducting several of the different branches of production, and there is a trend toward the further acquisition of mines by ore consumers.

Census Statistics.

The two principal branches of the industry are blast furnaces and steel works and rolling mills. These are the only branches for which comparable census data are available for a considerable series of years. Table 2 includes data for blast furnaces and steel works and rolling mills for every census year since 1899, and data for other branches of the industry in 1925.

The cost of materials and value of products involve much duplication between the two branches as well as within the steel works and rolling mills. The value added by manufacture is the result of deducting the cost of materials from the value of products. Manufacturers' profits can not be calculated from the census figures for the reason that no data are collected in regard to a number of expense items. The values have been greatly affected by price changes. The activity of the basic industry during the years 1919, 1923, and 1925, and the severe depression in 1921 are clearly indicated by these figures.

Table 2.—Census Statistics of the Iron and Steel Industry

Branch of industry and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				Thousands of dollars			
Blast furnaces:							
1899	223	39, 241	497, 272	18, 484	131, 504	206, 757	75, 253
1909	208	38, 429	1, 173, 422	24, 607	320, 638	391, 429	70, 791
1914	160	29, 356	1, 222, 273	22, 781	264, 580	317, 654	53, 074
1919	195	41, 660	1, 581, 432	73, 769	621, 287	794, 467	173, 180
1921	134	18, 698	(1)	29, 370	361, 049	419, 771	58, 722
1923	169	36, 712	1, 832, 919	58, 935	827, 630	1, 007, 613	179, 984
1925	122	[2] 29, 188	1, 380, 394	[2] 45, 312	617, 417	765, 286	147, 869
Steel works and rolling mills:							
1899	445	183, 249	1, 100, 801	102, 336	390, 895	597, 212	206, 317
1909	446	240, 076	2, 100, 978	163, 201	657, 501	985, 723	328, 222
1914	427	248, 716	2, 706, 553	188, 142	590, 826	918, 665	327, 839
1919	500	375, 088	3, 820, 917	637, 637	1, 680, 576	2, 828, 902	1, 148, 326
1921	494	235, 515	(1)	324, 987	1, 005, 125	1, 481, 659	476, 534
1923	489	388, 201	(3)	637, 825	2, 044, 398	3, 154, 325	1, 109, 926
1925	473	370, 726	4, 763, 533	614, 985	1, 811, 961	2, 946, 068	1, 134, 107
Other branches, 1925:							
Cast-iron pipe	77	23, 033	54, 820	27, 438	48, 847	100, 388	51, 541
Forgings	218	20, 290	120, 014	31, 313	68, 081	134, 511	66, 429
Hardware	476	52, 349	98, 278	65, 562	77, 503	225, 053	147, 550
Heating and cooking apparatus	789	89, 774	203, 439	130, 279	173, 230	493, 233	320, 003
Plumbers' supplies	239	33, 280	84, 534	46, 954	63, 610	167, 878	104, 268
Structural iron work	1, 136	48, 341	211, 732	77, 411	237, 653	420, 998	183, 345
Tools and cutlery	213	16, 407	51, 926	20, 226	20, 562	80, 391	59, 829
Tinware	221	29, 901	48, 703	34, 392	175, 779	260, 360	84, 581
Wire	68	18, 544	138, 115	26, 928	127, 251	184, 463	57, 212
Wrought pipe	42	10, 871	41, 306	17, 157	59, 142	94, 696	35, 553

[1] Not called for on schedule for 1921.

[2] The statistics for wage earners and wages for 1925 are not strictly comparable with those for 1923 for the reason that some of the blast-furnace operators included data in their 1923 reports for wage earners engaged in relining blast furnaces but did not include corresponding data in their reports for 1925.

[3] No comparable data.

Source: Bureau of the Census.

Iron Ore Production and Trade.

The great bulk of the iron ore used in the iron and steel industries is produced in the United States. Comparatively small quantities are imported, principally from Chile and Cuba. In 1926 the iron ore mined in the United States, exclusive of ore that contained 5 per cent or more of manganese in the natural state, is estimated by the Bureau of Mines at 67,693,000 long tons, an increase of 9 per cent as compared with the quantity mined in 1925. The ore shipped from the mines in 1926 is estimated at 69,141,000 long tons, valued at $175,307,000, an increase of 8 per cent in quantity and of 9 per cent in value as compared with the previous year. About 85 per cent of the iron ore shipped in 1926 came from the Lake Superior district in which approximately 57,314,000 long tons were mined, an increase of 10 per cent over 1925.

The imports of iron ore in 1926 amounted to 2,555,000 long tons, valued at $5,876,000, as compared with 2,191,000 long tons, valued at $6,895,000, in 1925. Exports of iron ore were about 869,000 long tons, valued at $3,381,000, compared with exports for the year 1925 of 631,000 tons, valued at $2,411,000.

Table 3.—Iron Ore Production, Shipments, Exports, and Imports

[Quantities in thousands of long tons; value in thousands of dollars]

Yearly average or year	Production				Shipments		Exports [1]		Imports	
	Total	Lake Superior	Birmingham	All other	Quantity	Value	Quantity	Value	Quantity	Value
1881–1890	10, 385	4, 243	(2)	6, 142	--------	----------	--------	--------	766	--------
1891–1900	17, 551	11, 665	(2)	5, 886	--------	----------	--------	--------	587	--------
1901–1910	41, 339	32, 422	(2)	8, 917	--------	----------	271	809	1, 180	3, 121
1911–1915	51, 595	42, 956	4, 172	4, 467	--------	----------	853	2, 736	1, 841	5, 783
1916–1920	69, 737	59, 450	5, 404	4, 883	70, 224	229, 370	1, 143	4, 842	967	3, 807
1921–1925	52, 429	44, 240	5, 327	2, 863	52, 617	160, 080	677	2, 994	1, 691	6, 955
1920	67, 604	57, 861	5, 220	4, 523	69, 281	285, 006	1, 145	6, 199	1, 273	4, 964
1921	29, 491	25, 298	2, 728	1, 465	26, 653	89, 745	440	2, 078	316	1, 076
1922	47, 129	39, 716	4, 711	2, 702	50, 613	157, 809	602	2, 771	1, 135	4, 916
1923	69, 351	59, 285	6, 047	4, 019	69, 811	240, 739	1, 117	5, 305	2, 768	11, 309
1924	54, 267	44, 842	6, 511	2, 914	52, 083	151, 307	595	2, 407	2, 047	10, 581
1925	61, 908	52, 057	6, 636	3, 215	63, 925	160, 797	631	2, 411	2, 191	6, 895
1926 [3]	67, 693	57, 314	(2)	10, 379	69, 141	175, 307	869	3, 381	2, 555	5, 876

[1] Nearly all exports are to Canada.

[2] Birmingham included in all other.

[3] Estimates based on preliminary figures furnished by producers who in 1925 mined about 99 per cent of the total iron ore.

Source: Bureau of Mines, Department of Commerce.

PRODUCTION

Pig Iron and Crude Steel.

During 1926 there was an increase in iron and steel production as compared with 1925. Production of steel set a new record and that of pig iron almost equaled the 1923 record. The production of 48,293,763 tons of steel ingots and castings in 1926 was an increase of 6 per cent over that of 1925, while pig-iron production of 39,373,000 tons was 7 per cent greater than in 1925. (Table 8.)

The output of pig iron was fairly steady throughout the year. The maximum monthly production of pig iron in May was 3,478,000 long tons, 13 per cent greater than the December output, 3,089,000 tons, which was the lowest of the year and about 5 per cent below that of the previous December. For steel ingots the maximum output was in March, while the difference between that level and that of December, the lowest month, was 29 per cent. The December output of steel ingots was about one-eighth lower than that of 1925, being 3,482,000 tons.

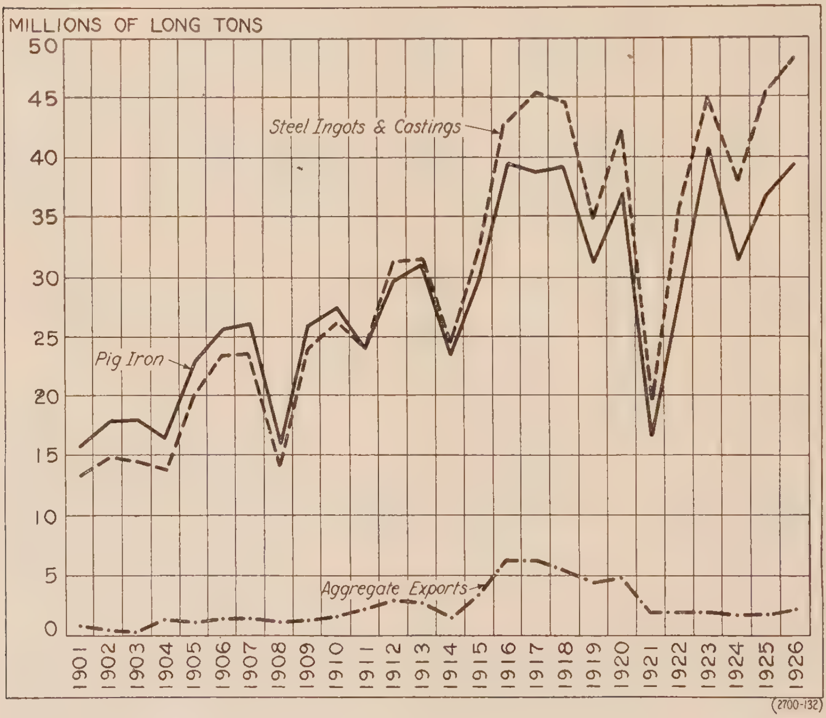
Table 4.—Monthly Production of Pig Iron and Steel Ingots

[Thousands of long tons]

Month	Pig iron						Steel ingots					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	2, 415	1, 646	3, 228	3, 015	3, 372	3, 320	2, 518	1, 892	3, 841	3, 634	4, 199	4, 150
February	1, 929	1, 630	2, 994	3, 074	3, 214	2, 924	1, 999	2, 072	3, 472	3, 809	3, 756	3, 802
March	1, 595	2, 036	3, 524	3, 465	3, 571	3, 458	1, 795	2, 815	4, 067	4, 188	4, 199	4, 488
April	1, 191	2, 070	3, 546	3, 226	3, 211	3, 439	1, 387	2, 902	3, 964	3, 334	3, 588	4, 124
May	1, 215	2, 309	3, 869	2, 620	2, 934	3, 478	1, 447	3, 219	4, 216	2, 628	3, 458	3, 945
June	1, 064	2, 363	3, 668	2, 023	2, 679	3, 232	1, 147	3, 128	3, 767	2, 056	3, 207	3, 751
July	865	2, 403	3, 685	1, 783	2, 665	3, 225	918	2, 953	3, 532	1, 869	3, 088	3, 651
August	955	1, 811	3, 449	1, 883	2, 707	3, 201	1, 301	2, 629	3, 696	2, 542	3, 424	4, 005
September	986	2, 024	3, 118	2, 054	2, 726	3, 163	1, 343	2, 818	3, 357	2, 815	3, 493	3, 931
October	1, 235	2, 630	3, 143	2, 462	3, 018	3, 334	1, 848	3, 410	3, 577	3, 111	3, 893	4, 093
November	1, 415	2, 846	2, 891	2, 515	3, 023	3, 238	1, 897	3, 430	3, 134	3, 107	3, 907	3, 722
December	1, 643	3, 084	2, 913	2, 956	3, 249	3, 089	1, 631	3, 300	2, 863	3, 552	3, 976	3, 482

Sources: Iron Trade Review; American Iron and Steel Institute.

Chart II.—PRODUCTION OF PIG IRON, STEEL INGOTS, AND CASTINGS, AND AGGREGATE EXPORTS OF IRON AND STEEL



Capacity, Activity, and Equipment.

About a year ago the American Iron and Steel Institute appointed a committee to ascertain the country's annual productive capacity for pig iron and steel ingots. The results of this inquiry appear in the following statement:

		Theoretical capacity	Practical capacity
Pig iron	long tons	51, 000, 000	45, 000, 000
Steel ingots, not including castings	do	56, 000, 000	50, 000, 000

The number of furnaces in blast was 237 at the end of April, 1926, the month of greatest activity. March, April, and May were the only months when furnace activity was above normal. The activity was least in December, when only 203 furnaces were in blast.

In 1926 there were 14 blast furnaces removed from the serviceable list. During the year six large blast furnaces with an estimated capacity of 1,255,000 tons were completed and put into operation, and three more are under construction for possible completion in 1927. The total number of serviceable furnaces at the end of 1926 was 371. The rebuilding and enlarging of present equipment was also carried on to a considerable extent during the year.

Refinements in equipment already in service and a few drastic changes in design were the contribution of the engineering profession to the rolling-mill industry in 1926. This year has seen the introduction into this country of the pilger type mill for rolling seamless tubes. Several pilger mills are understood to have been completed last year. This development will make it possible for American mills to supply the requirements of the California oil fields for large-diameter casing of the seamless type, which we have up to this time been forced to import.

Table 5.—Furnaces in Blast

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1921	184	155	103	96	90	74	69	69	84	95	120	123
1922	127	139	155	161	175	191	170	143	189	218	240	265
1923	261	278	295	311	322	322	299	270	254	245	231	231
1924	248	263	269	234	187	158	145	150	174	182	204	229
1925	251	256	246	221	196	191	188	192	200	209	220	233
1926	225	223	235	237	229	220	217	215	216	218	216	203
Per cent of all furnaces:[1]												
1924	60.0	63.6	65.6	57.1	45.7	38.6	35.5	36.5	42.3	44.2	49.7	55.6
1925	61.0	62.3	60.0	54.0	48.5	47.9	47.5	49.2	51.6	54.1	57.2	60.5
1926	58.5	58.5	62.4	63.0	60.9	59.1	58.4	57.8	58.2	58.5	57.7	55.0

[1] 60 per cent is considered normal.

Source: Iron Trade Review.

Distribution of Finished Steel.

Figures for total production of the individual classes of rolled steel in 1926 and earlier years are shown in Table 11. The output of all rolled products in 1926 was 35,496,000 long tons, or 6.3 per cent more than in 1925. The increase for all finished products was shared by each class in varying degree.

Reports of distribution from companies controlling a large percentage of the capacity of the country are given in Tables 6 and 7. Among the industrial groups which use these products, producers of automotive vehicles took a relatively larger percentage of the total than any other group, 14.7 per cent in 1926. This was practically the same part of the total which they required in 1925, but an increase of 459,000 tons in actual quantity, the increase being largely in consumption of black plates for tinning and sheets. Construction other than railroad ranked second, taking 13.2 per cent of the 1926 output, whereas in 1925 this group had held first place in point of consumption and had used 191,000 tons more finished steel. Oil and gas requirements showed an even larger decline on the percentage basis as well as in actual quantity. The demand of the railroad car and locomotive industry for steel also fell off more than 10 per cent as compared with 1925. Requirements for railroad track work, mining and lumbering, metal containers, and exports increased considerably, while for other groups only slight changes occurred.

Table 6.—Distribution of Output of Finished Steel in 1926, by Consuming Groups and by Individual Products

[Based on reports of companies controlling 88.71 per cent of the country's steel ingot capacity in 1926, 83.76 per cent in 1925, and 76.30 per cent in 1924. In thousands of long tons]

Consuming group	Rails and accessories	Plates	Structural shapes	Bars and shapes under 3-inch	Hoops, bands, and cotton ties	Black plates for tinning, and sheets	Tubing and pipe	Wire products	Other finished steel products
Railroad buildings and bridges	71	272	274	187	3	31	3	6	34
Other buildings and bridges	2	541	1, 744	690	46	523	118	122	128
Railroad track work	3, 385	8	(1)	51	(1)		14	(1)	210
Street railways	95	5	7	22	(1)	(1)	4		41
Automotive vehicles	(1)	177	38	1, 448	372	1, 351	91	112	776
Railroad cars and locomotives	(1)	838	304	469	11	250	45	13	261
Oil, gas, and water requirements	7	603	90	87	13	161	918	30	39
Mining and lumbering	160	16	12	36	8	6	843	14	5
Agricultural equipment	613	44	12	178	26	104	11	405	20
Metal containers		21	1	5	79	1, 429	(1)	17	15
Shipbuilding	(1)	118	46	22	(1)	2	2	1	4
Machinery and hand tools	3	69	61	450	14	74	2	33	74
Exports	220	146	154	127	21	560	197	97	59
Jobbers and warehouses	43	168	213	543	62	335	1, 009	543	206
All other requirements	35	251	127	614	97	920	240	627	456
Total, 1926	4, 022	3, 276	3, 083	4, 931	752	5, 746	3, 500	2, 020	2, 326
Comparative totals:									
1925	3, 529	2, 754	2, 932	4, 811	1, 191	4, 650	2, 776	2, 122	2, 037
1924	2, 616	2, 483	2, 749	3, 253	911	3, 182	2, 023	1, 811	1, 468
Per cent distribution:									
1926	13. 6	11. 0	10. 4	16. 6	2. 5	19. 4	11. 8	6. 8	7. 8
1925	13. 2	10. 3	10. 9	17. 9	4. 4	17. 3	10. 4	7. 9	7. 6
1924	12. 8	12. 1	13. 4	15. 9	4. 4	15. 5	9. 9	8. 8	7. 2

[1] Less than 500 tons.

Source: Iron Trade Review.

Table 7.—Distribution of Output of Finished Steel by Consuming Groups

NOTE.—The absolute figures for the three years are not strictly comparable since they are based on the reports of companies controlling 76.30 per cent in 1924, 83.76 per cent in 1925, and 88.71 per cent in 1926 of the country's capacity for steel ingots. The percentages are fairly comparable.

Consuming group	Thousands of tons			Per cent of total		
	1924	1925	1926	1924	1925	1926
All groups	**20, 496**	**26, 803**	**29, 657**	**100. 0**	**100. 0**	**100. 0**
Railroad buildings and bridges	664	525	881	3. 2	2. 0	3. 0
Other buildings and bridges	2, 956	4, 106	3, 915	14. 4	15. 3	13. 2
Railroad track work	2, 257	2, 999	3, 668	11. 0	11. 2	12. 4
Street railways	176	177	174	0. 9	0. 7	0. 6
Automotive vehicles	2, 266	3, 906	4, 365	11. 1	14. 6	14. 7
Railroad cars and locomotives	2, 552	2, 285	2, 192	12. 5	8. 5	7. 4
Oil, gas, and water requirements	1, 697	2, 161	1, 949	8. 3	8. 1	6. 6
Mining and lumbering	196	202	1, 100	1. 0	0. 8	3. 7
Agricultural equipment	724	810	800	3. 5	3. 0	2. 7
Metal containers	993	1, 130	1, 568	4. 8	4. 2	5. 3
Shipbuilding	171	164	196	0. 8	0. 6	0. 7
Machinery and hand tools	756	722	779	3. 7	2. 7	2. 6
Exports	1, 259	1, 204	1, 582	6. 1	4. 5	5. 3
Jobbers and warehouses	(1)	(1)	3, 122			10. 5
All other requirements	3, 829	6, 411	3, 367	18. 7	23. 9	11. 4

[1] Included in "All other requirements."

Source: Iron Trade Review.

Comparative Statistics for Earlier Years.

Comparative statistics of the production of pig iron, crude steel, and rolled and miscellaneous steel products for a series of years are presented in Tables 8 to 11. They show the steady increase in the iron and steel industry up to the time of the war, the great temporary expansion resulting from abnormal war demand, and the high level maintained during postwar years, with the single exception of the very depressed year 1921.

Table 8.—Production of Pig Iron (Including Ferro-Alloys), Steel Ingots and Castings, and Finished Rolled Products

[Thousands of long tons]

Yearly average or year	Pig iron	Steel ingots	Rolled products	Year	Pig iron	Steel ingots	Rolled products
1871–1875	2, 248	204	----------	1915	29, 916	32, 151	24, 393
1876–1880	2, 563	804	----------	1916	39, 435	42, 774	32, 380
1881–1885	4, 301	1, 652	----------	1917	38, 621	45, 061	33, 068
1886–1890	7, 079	3, 293	5, 089	1918	39, 055	44, 462	31, 156
1891–1895	8, 133	4, 676	5, 473	1919	31, 015	34, 671	25, 102
1896–1900	11, 492	8, 440	8, 163	1920	36, 926	42, 133	32, 348
1901–1905	18, 240	15, 368	13, 671	1921	16, 688	19, 784	14, 774
1906–1910	24, 025	22, 167	18, 509	1922	27, 220	35, 603	26, 452
1911–1915	27, 518	28, 378	22, 250	1923	40, 361	44, 944	33, 277
1916–1920	37, 010	41, 820	30, 811	1924	31, 406	37, 932	28, 086
1921–1925	30, 475	36, 753	27, 195	1925	36, 701	45, 394	33, 387
1910	27, 304	26, 095	21, 621	1926	39, 373	48, 294	35, 496
1911	23, 650	23, 676	19, 039				
1912	29, 727	31, 251	24, 657				
1913	30, 966	31, 301	24, 791	Per cent change from 1925	+7. 28	+6. 39	+6. 32
1914	23, 332	23, 513	18, 370				

Source: American Iron and Steel Institute. Figures differ somewhat from those in Tables 4 and 24, which are from another source and are compiled on a slightly different basis.

Table 9.—Production of Pig Iron, by Processes

[Thousands of long tons]

Kind	1905	1910	1915	1920	1921	1922	1923	1924	1925	1926
All pig iron	**22, 992**	**27, 304**	**29, 916**	**36, 926**	**16, 688**	**27, 220**	**40, 361**	**31, 406**	**36, 701**	**39, 373**
Basic	4, 105	9, 085	13, 093	16, 738	7, 753	13, 841	19, 796	15, 999	19, 667	21, 168
Bessemer	12, 407	11, 246	10, 523	12, 062	5, 595	7, 813	11, 678	8, 172	9, 419	10, 042
Foundry	4, 758	5, 260	4, 844	5, 958	2, 568	3, 976	6, 470	5, 623	5, 184	5, 507
Malleable	635	843	830	1, 311	457	1, 051	1, 571	973	1, 554	1, 682
Forge	728	564	316	318	113	214	327	256	241	216
Other, and alloys	359	306	310	539	202	323	519	382	636	757

Source: American Iron and Steel Institute.

Table 10.—Production of Steel Ingots and Castings, by Processes

[Thousands of long tons]

Year	Grand total	Bessemer	Open hearth				Crucible	Electric	Miscellaneous
			Total	Per cent of grand total	Basic	Acid			
1890	4, 277	3, 689	513	12. 0	--------	--------	71	--------	4
1900	10, 188	6, 685	3, 398	33. 4	2, 545	853	101	--------	5
1905	20, 024	10, 941	8, 971	44. 8	7, 816	1, 156	102	--------	9
1910	26, 095	9, 413	16, 505	63. 2	15, 292	1, 212	122	52	3
1915	32, 151	8, 287	23, 679	73. 6	22, 309	1, 370	114	69	2
1920	42, 133	8, 883	32, 672	77. 5	31, 376	1, 296	72	502	4
1921	19, 784	4, 016	15, 590	78. 8	15, 083	507	8	169	1
1922	35, 603	5, 919	29, 309	82. 3	28, 387	922	29	346	--------
1923	44, 944	8, 484	35, 900	79. 9	34, 665	1, 235	44	516	--------
1924	37, 932	5, 900	31, 577	83. 2	30, 720	858	22	433	--------
1925	45, 394	6, 724	38, 034	83. 8	37, 087	947	20	616	--------
1926	48, 294	6, 948	40, 678	84. 2	39, 653	1, 025	15	652	--------

Source: American Iron and Steel Institute.

Table 11.—Production of Rolled and Miscellaneous Steel Products

[Thousands of long tons, unless otherwise indicated]

Item	1910	1915	1920	1921	1922	1923	1924	1925	1926
Rolled products	**21, 621**	**24, 393**	**32, 348**	**14, 774**	**26, 452**	**33, 277**	**28, 086**	**33, 387**	**35, 496**
Rails, total	3, 636	2, 204	2, 604	2, 179	2, 172	2, 905	2, 433	2, 785	3, 218
Sheets and plates, total	4, 955	6, 078	9, 338	4, 261	7, 968	9, 498	8, 088	9, 808	10, 529
Universal		955	1, 250	571	1, 248	1, 304	1, 002	1, 196	1, 408
Sheared		1, 923	3, 505	1, 190	2, 172	2, 865	2, 147	2, 557	2, 794
Black sheets [1]		1, 837	2, 886	1, 512	2, 917	3, 503	3, 266	4, 097	4, 237
Black plates for tinning		1, 093	1, 449	787	1, 267	1, 499	1, 415	1, 632	2, 090
Other black-plate specialties		270	247	201	365	327	257	325	
Wire rods	2, 242	3, 096	3, 137	1, 564	2, 655	3, 076	2, 523	2, 845	2, 722
Structural shapes	[2] 2, 267	2, 437	3, 307	1, 273	2, 719	3, 405	3, 284	3, 604	3, 912
Merchant bars	3, 786	4, 131	6, 130	1, 566	3, 979	5, 553	4, 281	5, 659	5, 474
Concrete bars	241	353	572	227	576	681	656	820	816
Skelp	1, 828	2, 299	3, 220	1, 931	2, 872	3, 734	3, 171	3, 230	3, 765
Hoops	262	282	333	167	222	221	179	205	190
Bands and cotton ties	425	438	389	111	271	348	294	356	356
Splice and tie-plate bars		536	576	424	606	750	630	823	954
Rolled forging blooms, billets, etc	460	651	447	108	326	449	347	345	363
Blooms, billets, etc., for export		562	136	8	11	1	(3)	(3)	(3)
All other	1, 519	1, 326	2, 158	956	2, 075	2, 657	2, 200	2, 908	3, 197
Miscellaneous products:									
Tin and terne plates	723	1, 056	1, 446	794	1, 288	1, 507	1, 419	1, 658	1, 782
Galvanized sheets		[4] 1, 582	[4] 1, 871	[4] 1, 367	[4] 2, 110	[4] 2, 365	[4] 2, 229	[4] 2, 539	2, 788
Galvanized formed products		[4] 112	[4] 144	[4] 110	[4] 166	[4] 166	[4] 156	[4] 178	155
Rail joints and fastenings		471	527	395	538	676	570	733	867
Wire nails	[5] 12, 705	[5] 14, 583	[5] 16, 450	[5] 11, 889	[5] 15, 053	[5] 17, 673	[5] 15, 101	[5] 15, 454	14, 869
Cut nails	[5] 1, 005	[5] 775	[5] 845	[5] 539	[5] 810	[5] 830	[5] 742	[5] 736	662
Wrought pipe [6]		1, 920	3, 003	1, 987	2, 732	3, 351	2, 824	3, 031	3, 403
Boiler tubes		97	119	57	74	91	56	63	61
Seamless steel tubes		140	292	118	258	404	261	[7] 568	[7] 775
Cast-iron pipe		[8] 1, 215	[8] 887	[8] 794	[8] 1, 283	[8] 1, 567	[8] 1, 841	[8] 2, 324	2, 004

[1] Rolled of sheet or jobbing mills.
[2] Production of small structural forms not included.
[3] Less than 500 tons.
[4] Millions of pounds.
[5] Thousands of 100-lb. kegs.
[6] Including boiler tubes.
[7] Includes 162,294 tons of seamless steel boiler tubes in 1925 and 174,000 in 1926. Figures for prior years not available.
[8] Thousands of short tons.

Source: American Iron and Steel Institute.

The distribution of the more important rolled steel products is shown in Table 12. It will be noted that the relative importance of the individual products varies only slightly from year to year. Since 1922 sheets and plates have been of first importance, constituting between 25 and 30 per cent of the total; merchant and concrete bars have ranked second, ranging from 17 to 20 per cent; structural shapes, skelp, and wire rods each amounted to about 10 per cent; and rails to about 8½ per cent, with other products making up the balance.

Table 12.—Distribution of Production of Rolled Steel

[Percentages based on Table 11]

Item	1910	1915	1920	1921	1922	1923	1924	1925	1926
Total rolled products	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**
Rails, total	16. 8	9. 0	8. 1	14. 7	8. 2	8. 7	8. 7	8. 3	9. 1
Sheets and plates, total	22. 9	24. 9	28. 9	28. 8	30. 1	28. 5	28. 8	29. 4	29. 7
Wire rods	10. 4	12. 7	9. 7	10. 6	10. 0	9. 2	9. 0	8. 5	7. 6
Structural shapes	10. 5	10. 0	10. 2	8. 6	10. 3	10. 2	11. 7	10. 8	11. 0
Merchant and concrete bars	18. 6	18. 4	20. 7	12. 1	17. 2	18. 7	17. 6	19. 4	17. 7
Skelp	8. 5	9. 4	10. 0	13. 1	10. 9	11. 2	11. 3	9. 7	10. 6
All other	12. 3	15. 6	12. 4	12. 1	13. 3	13. 5	12. 9	13. 9	14. 3

Progress in Simplification.

Under the joint auspices of the Division of Simplified Practice and the National Committee on Metals Utilization, considerable progress has been made in the application of simplified practice methods to products of the iron and steel industry. At the end of 1926 there were 18 completed simplified practice recommendations in effect, 15 additional projects were active and nearing completion, and over 100 items which were suggested to the division as being in need of simplification were on the list of projects to be investigated. The simplified practice recommendations in effect at the close of the year included the following:

Builders' hardware.
Cut tacks and nails.
Files and rasps.
Forged tools.
Galvanized and japanned ware.
Hot water storage tanks.
Metal lath.
Pipe and fittings, wrought iron and steel.
Plow bolts.
Range boilers.
Scrap classification.
Sheet steel.
Shovels.
Spades and scoops.
Steel barrels and drums.
Steel reinforcing bars.
Steel reinforcing spirals.
Terne plate.
Tinware.
Woven wire fencing.

MARKET CONDITIONS AND PRICE MOVEMENT

During recent years the phenomenon of hand-to-mouth buying has been remarked as an interesting innovation, and in 1926 this practice assumed the proportions of a custom, and stands out as probably the principal development of the year. The efficiency of the transportation service of railroads and auxiliary carriers, assuring prompt deliveries, and a generous mill capacity, assuring the prompt filling of orders, made it possible for consumers to reduce their stocks to the lowest on record during 1926.

The effect of these developments which placed the buyer in a favorable position for securing his requirements upon short notice direct from the mills has been felt by the jobbers and private warehouses not operated by steel manufacturers. In 1926 the jobbers and warehouses handled about 10 per cent of the total consumption of finished rolled steel products (Table 7), but one authority estimates that they are doing only one-half the business they did before the war.

Merchandising, embracing the external problems of group competition, trade extension, distribution, and marketing, challenged the best talent of the iron and steel industry in 1926. This year also witnessed the general recognition of high wages as a necessary part of prosperity. The increased use of labor-saving machinery in 1926 raised the production per man-hour in the steel industry about 60 per cent above 1914.

The complicated problem of high freight rates is calling for constant adjustments in the industry. Localization of markets, diversification of products, and location with regard to supply of raw materials are all involved in this problem, in an effort to solve which iron and steel plants are relying upon river and lake transportation to an ever increasing extent.

Factors in Demand.

The production of merchant iron, made for sale as such, reflects approximately the demand for pig iron in industries other than the steel-rolling industry, concerns engaged in which mostly make their own pig iron. A great part of this merchant pig iron is of the foundry grade. The production of merchant pig iron is only about one-fifth of the total production of pig iron. This ratio varies but slightly from year to year. In 1926 the short month of February was the month of smallest production, while both August and September were also comparatively low. The highest monthly production occurred from April to July, May marking the peak for the year. The output of merchant pig iron in December was 10 per cent lower than that in May, but still stood 8 per cent above that of the closing month of 1925.

Per cent of capacity production of steel sheets and unfilled orders of the United States Steel Corporation are barometers which reflect changes in demand for intermediate products and for steel in general. (Table 13.) Both indicate a weaker demand during 1926 than during 1925. Producers of steel sheets operated at more than 100 per cent of normal capacity during the first two months of the year and in October.

Table 13.—Production of Merchant Pig Iron and Steel Sheets, and Unfilled Orders for Iron and Steel

[Thousands of long tons]

Period	Production of merchant pig iron			Production of steel sheets, per cent of capacity			United States Steel Corporation, unfilled orders[1]		
	1924	1925	1926	1924	1925	1926	1924	1925	1926
Total	**7,320**	**7,592**	**8,656**	[2] **74.2**	[2] **92.8**	[2] **90.4**	--------	--------	--------
January	708	659	725	87.2	98.0	104.4	4,798	5,037	4,883
February	680	661	622	96.5	96.5	100.9	4,913	5,285	4,617
March	712	736	733	96.5	90.7	94.2	4,783	4,864	4,380
April	708	689	779	79.0	87.5	91.0	4,208	4,447	3,868
May	649	605	798	59.6	87.0	84.3	3,628	4,050	3,649
June	551	564	735	40.9	83.4	84.0	3,263	3,710	3,479
July	469	610	758	48.7	75.5	77.3	3,187	3,539	3,603
August	465	588	682	65.2	87.2	92.0	3,290	3,513	3,542
September	518	569	684	75.7	92.7	96.2	3,474	3,717	3,594
October	608	606	713	78.9	106.4	101.4	3,525	4,109	3,684
November	605	638	710	79.7	107.8	86.9	4,032	4,582	3,807
December	647	665	716	82.6	100.7	72.3	4,817	5,033	3,961

[1] End of period.

[2] Average for year.

Sources: Iron Age, National Association of Sheet and Tin Plate Manufacturers, and United States Steel Corporation.

Composite Prices.

Pig iron, chiefly because only a comparatively small quantity is made for sale, is normally subject to much greater variations in price than most finished steel products, although the trends are usually in the same direction. The composite price of pig iron in 1926, although the lowest since 1916, averaged only 1 per cent lower than in 1925. The composite steel price also declined slightly during the past year. The gradual fall in prices, which has been in progress since the peak of 1923, tended to greater stabilization in 1926. The index of composite prices of finished steel showed fluctuations within a very narrow range, while for pig iron there was a considerable sag in the summer and early fall followed by a slight recovery during the closing months of the year.

Table 14.—Index Numbers of Composite Prices for Finished Steel and Pig Iron

[Average for 1913=100]

Month	Finished steel (composite)							Pig iron (composite)						
	1920	1921	1922	1923	1924	1925	1926	1920	1921	1922	1923	1924	1925	1926
Average	**222**	**152**	**134**	**165**	**157**	**148**	**147**	**284**	**156**	**162**	**176**	**142**	**138**	**137**
January	190	184	124	149	168	154	147	258	212	132	177	150	151	145
February	210	176	121	157	167	153	146	277	194	125	181	156	151	145
March	225	166	122	164	166	153	146	279	177	125	197	155	148	144
April	231	165	125	169	162	151	147	283	167	135	204	152	141	140
May	230	166	127	168	159	148	145	288	159	155	200	146	134	137
June	227	159	130	168	157	147	146	291	150	158	189	137	128	134
July	234	148	131	167	154	146	146	296	140	159	175	130	128	131
August	239	141	138	167	152	145	146	307	132	180	169	131	128	131
September	239	136	146	167	150	144	147	318	136	211	168	132	130	131
October	230	134	148	167	148	145	147	305	137	206	158	132	134	132
November	215	128	148	167	150	146	148	271	136	191	146	134	142	135
December	187	127	147	167	153	147	148	235	132	173	148	145	144	135

Sources: Bureau of the Census, Department of Commerce, from compilations by the Iron Age and the American Metal Market.

Individual Products.

The prices of the principal individual grades of pig iron have moved in rather close parallel since 1920. (Table 15.) Among individual semifinished and finished products, however, decided differences appear. (Table 16.) Tin plate and steel pipe have shown no change in quoted prices during the last two years, but yearly average prices of all other products listed in Table 16 show decreases in 1926 varying from 2.7 per cent in the case of cast-iron pipe to four-tenths of 1 per cent in that of wrought-iron pipe. Prices for all individual products were fairly stable from month to month throughout the year.

Table 15.—Average Prices of Pig Iron per Long Ton at Pittsburgh

Year	Bessemer	Basic	Foundry No. 2	Malleable	Gray forge
1913	$17.16	$15.68	$14.94	$15.00	$15.32
1920	44.53	44.19	44.82	42.90	43.67
1921	25.49	23.74	25.19	23.30	24.15
1922	27.03	26.13	27.02	25.26	26.53
1923	28.96	27.66	28.02	27.82	27.42
1924	23.23	22.06	22.38	22.39	22.06
1925	22.28	21.52	21.63	21.68	21.17
1926	21.35	20.30	20.78	20.79	20.36

Source: Based on figures from the Iron Trade Review.

Table 16.—Average Prices of Iron and Steel Products at Pittsburgh

Period	Bessemer billets[1] (ton)	Open-hearth sheet bars[1] (ton)	Wire rods (ton)	Tin plate (box 100 lbs.)	Black sheets (100 lbs.)	Steel bars (100 lbs.)	Tank plates (100 lbs.)	Structural shapes (100 lbs.)	Wrought-iron pipe (short ton)	Steel pipe (short ton)	Cast-iron pipe[2] (short ton)
1913	$25.79	$26.85	$28.40	$3.55	$2.20	$1.55	$1.50	$1.50	$50.65	$36.42	$23.37
1920	56.22	67.09	69.55	7.53	5.83	3.22	3.28	2.95	119.16	83.13	73.98
1921	34.46	35.99	45.94	5.90	3.50	1.87	1.93	1.94	116.55	66.14	54.68
1922	33.95	34.55	40.49	4.73	3.19	1.72	1.72	1.71	107.50	54.69	51.44
1923	41.70	42.53	50.39	5.42	3.73	2.36	2.43	2.43	129.67	68.71	60.57
1924	37.99	39.68	48.31	5.50	3.60	2.20	2.12	2.19	131.10	70.30	59.46
1925	35.23	36.38	46.05	5.50	3.28	2.02	1.91	1.99	128.37	70.30	51.65
1926	35.00	36.04	45.00	5.50	3.21	2.00	1.88	1.95	127.82	70.30	50.25
Per cent change from 1925	−.7	−.9	−2.3	0.0	−2.1	−1.0	−1.6	−2.0	−.4	0.0	−2.7
1924											
January-March	$40.00	$42.50	$51.00	$5.50	$3.82	$2.40	$2.45	$2.46	$131.10	$70.30	$61.60
April-June	38.83	40.90	49.25	5.50	3.61	2.24	2.22	2.24	131.10	70.30	61.60
July-September	37.38	38.23	46.83	5.50	3.47	2.11	1.95	2.03	131.10	70.30	58.93
October-December	35.75	37.07	46.17	5.50	3.51	2.04	1.85	2.01	131.10	70.30	55.72
1925											
January-March	36.90	38.83	48.00	5.50	3.51	2.10	2.00	2.10	130.01	70.30	54.07
April-June	35.25	36.08	46.20	5.50	3.23	2.03	1.97	2.02	127.82	70.30	51.35
July-September	35.00	35.00	45.00	5.50	3.14	1.96	1.85	1.95	127.82	70.30	50.60
October-December	34.67	35.60	45.00	5.50	3.23	2.00	1.85	1.90	127.82	70.30	50.60
1926											
January	35.00	36.50	45.00	5.50	3.35	2.00	1.86	1.90	127.82	70.30	50.60
February	35.00	36.00	45.00	5.50	3.28	2.00	1.80	1.90	127.82	70.30	50.60
March	35.00	36.00	45.00	5.50	3.25	2.00	1.86	1.90	127.82	70.30	50.60
April	35.00	36.00	45.00	5.50	3.25	2.00	1.90	1.90	127.82	70.30	50.60
May	35.00	36.00	45.00	5.50	3.18	1.95	1.86	1.90	127.82	70.30	50.60
June	35.00	36.00	45.00	5.50	3.10	2.00	1.88	1.94	127.82	70.30	50.60
July	35.00	36.00	45.00	5.50	3.10	2.00	1.90	2.00	127.82	70.30	50.60
August	35.00	36.00	45.00	5.50	3.10	2.00	1.90	2.00	127.82	70.30	50.60
September	35.00	36.00	45.00	5.50	3.15	2.00	1.90	2.00	127.82	70.30	49.85
October	35.00	36.00	45.00	5.50	3.23	2.00	1.90	2.00	127.82	70.30	49.60
November	35.00	36.00	45.00	5.50	3.25	2.00	1.90	2.00	127.82	70.30	49.60
December	35.00	36.00	45.00	5.50	3.25	2.00	1.90	2.00	127.82	70.30	49.10

[1] Throughout 1921 to 1925, inclusive, quotations on open-hearth billets and Bessemer sheet bars were the same as those on Bessemer billets and open-hearth sheet bars, respectively.

[2] At New York.

Sources: Iron Age, with the exception of open-hearth sheet bars, quotations for which are from Iron Trade Review.

Statistics of the longer swing of prices (Table 17) show for most products, and notably for pig iron, a number of decidedly marked changes. Steel being largely used for construction work and production of machinery, is greatly affected by changes in the general level of business activity. However, it is increasingly the policy of producers to hold prices moderate even when demand is exceptionally strong. During the year 1926, the price of basic pig iron maintained the lowest level in 10 years, and although about 35 per cent higher than the 1915 average was still well below that of 1921 and 5 per cent less than in 1925. Finished steel products also averaged lower than in any year since 1922. The price of open-hearth rails has remained stationary for the past four years.

Chart III.—PRICES AT PITTSBURGH OF COMPOSITE STEEL AND SELECTED INDIVIDUAL PRODUCTS

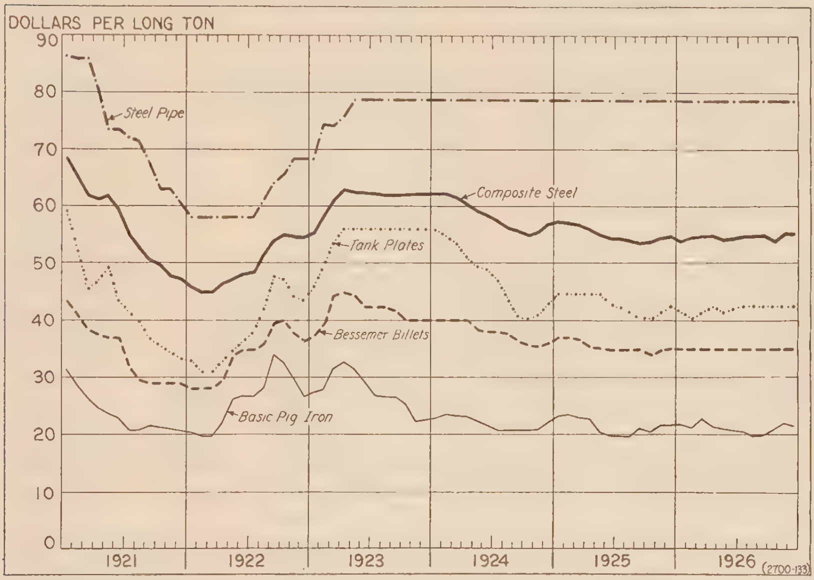


Table 17.—Prices of Selected Iron and Steel Products

NOTE.—Prices of pig iron are at Valley furnaces; of rails, at mills in Pennsylvania; of other products, at Pittsburgh. Prices per long ton for pig iron, rails, and billets and per 100 pounds for other products.

Year	Pig iron (basic) [1]	Open-hearth rails	Bessemer billets	Soft-steel bars	Tank plates	Steel beams	Year	Pig iron (basic)	Open-hearth rails	Bessemer billets	Soft-steel bars	Tank plates	Steel beams
1890	$18.87	$31.78	$30.29	------	-------	-------	1913	$14.71	$28.00	$25.79	$1.55	$1.50	$1.50
1895	12.72	24.33	18.48	------	-------	-------	1914	12.87	30.00	20.08	1.15	1.14	1.15
1900	19.49	32.29	25.06	$1.59	$1.54	$1.91	1915	13.74	30.00	22.44	1.31	1.31	1.30
1901	15.93	27.33	24.13	1.42	1.55	1.58	1916	19.76	34.00	43.95	2.67	3.53	2.55
1902	20.67	28.00	30.57	1.58	1.70	1.81	1917	38.90	40.00	70.78	3.63	5.88	3.67
1903	18.98	28.00	27.91	1.56	1.61	1.62	1918	32.50	57.00	47.33	2.89	3.24	2.99
1904	12.59	28.00	22.18	1.33	1.54	1.54	1919	27.65	49.29	40.51	2.50	2.72	2.53
1905	15.25	28.00	24.03	1.48	1.58	1.62	1920	42.21	54.38	56.22	3.22	3.28	2.95
1906	18.10	28.00	27.41	1.51	1.61	1.70	1921	21.74	45.69	34.46	1.87	1.93	1.94
1907	20.87	28.00	29.23	1.60	1.70	1.70	1922	24.20	40.75	33.95	1.72	1.72	1.71
1908	15.16	28.00	26.31	1.49	1.64	1.64	1923	25.81	43.00	41.70	2.36	2.43	2.43
1909	15.48	28.00	24.61	1.33	1.42	1.42	1924	20.24	43.00	37.99	2.20	2.12	2.19
1910	14.76	28.00	25.40	1.44	1.47	1.45	1925	19.59	43.00	35.23	2.02	1.91	1.99
1911	13.07	28.00	21.43	1.26	1.31	1.32	1926	18.55	43.00	35.00	2.00	1.88	1.95
1912	13.92	28.00	22.39	1.29	1.33	1.32							

[1] Down to 1904 figures represent Bessemer pig iron, Pittsburgh; from 1904 on they represent basic in the Valleys and are less than basic prices in Table 15, which are at Pittsburgh. In 1904 the price of Bessemer pig iron was $13.76 and the price of basic, the Valleys, was $12.59.

Sources: Compiled by American Iron and Steel Institute from the Iron Age and other sources.

FOREIGN TRADE

Exports.

Although the United States produces about one-half of the world's total output of iron and steel, it exported only about 4½ per cent of steel ingot production and ranked fifth among the countries of the world in volume of exports. (Table 26.) Our total exports of the heavier iron and steel products (not including advanced manufactures such as machinery, hardware, etc.), in 1926 were 2,167,000 long tons, an increase of almost 23 per cent as compared with 1925 and more than in any other year since 1921. (Table 18.) The exports of 1926 were valued at $174,483,000.

Table 18.—Aggregate Domestic Exports of Heavy Iron and Steel [1]

Year	Quantity	Value	Year	Quantity	Value	Year	Quantity	Value
	1,000 long tons	*Thousands of dollars*		*1,000 long tons*	*Thousands of dollars*		*1,000 long tons*	*Thousands of dollars*
1890	52	----------	1909	1,244	50,777	1920	4,935	458,376
1895	89	----------	1910	1,538	63,436	1921	2,213	214,830
1900	1,154	42,518	1911	2,188	86,599	1922	1,995	136,334
1901	701	29,050	1912	2,948	112,535	1923	2,010	167,247
1902	372	15,889	1913	2,746	108,875	1924	1,806	150,494
1903	327	14,533	1914	1,550	63,409	1925	1,763	144,262
1904	1,168	35,248	1915	3,533	140,993	1926	2,167	174,483
1905	1,010	33,813	1916	6,101	353,971	Per cent change from 1925	+22.9	+20.9
1906	1,326	52,215	1917	6,439	567,041			
1907	1,302	60,046	1918	5,375	558,279			
1908	964	43,397	1919	4,400	410,164			

[1] Beginning with 1922 the small item "steam and hot water heating boilers and radiators" is omitted being covered by Table 22.

Source: Bureau of Foreign and Domestic Commerce.

Exports of heavy iron and steel products were at a high rate during the month of January, exceeding any month except August of the preceding year. A decline during February and March was followed by a large expansion in April. In July exports were slightly larger than in April, but November was the maximum month of the year when exports amounted to 219,830 tons, the greatest quantity for any month since January, 1924. There was a slight falling off in exports for December, but they were still almost 40 per cent greater than during the same month in 1925.

Table 19.—Aggregate Domestic Exports of Heavy Iron and Steel, by Months

Month	Quantity, long tons				Month	Quantity, long tons			
	1923	1924	1925	1926		1923	1924	1925	1926
January	124,425	248,597	141,708	174,585	July	170,248	129,555	139,858	194,717
February	135,100	165,918	102,298	157,187	August	163,002	136,022	188,467	171,588
March	165,579	129,220	155,383	169,438	September	173,664	135,895	136,791	182,071
April	179,021	127,136	155,423	194,449	October	154,166	158,553	141,816	172,070
May	204,820	155,238	150,617	173,418	November	188,295	125,621	171,135	219,830
June	172,631	165,047	136,849	159,506	December	179,219	129,464	142,206	198,191

Source: Bureau of Foreign and Domestic Commerce.

Table 20.—Exports of Heavy Iron and Steel Products, by Classes

Article	Quantity (long tons)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total[1]	**2,010,166**	**1,806,266**	**1,762,551**	**2,167,048**	**167,247**	**150,494**	**144,262**	**174,483**
Pig iron, not including ferro-alloys	32,318	41,483	32,674	25,280	862	958	725	524
Scrap	65,980	97,748	82,573	104,647	1,036	1,531	1,377	1,794
Ingots, blooms, billets, sheet bars, and skelp	111,881	96,160	87,479	100,956	5,931	4,661	3,892	4,555
Iron bars	12,662	5,054	4,616	5,171	1,076	514	425	445
Steel bars	158,319	99,534	111,950	137,770	10,743	7,190	7,605	8,935
Alloy steel bars	2,148	2,742	3,692	4,946	770	615	703	923
Wire rods	40,868	18,762	21,207	19,646	2,163	1,048	1,082	1,086
Galvanized sheets	114,750	108,152	160,269	178,636	12,396	11,940	16,842	18,392
Plates, iron and steel	115,462	85,048	104,448	138,258	7,353	5,248	6,205	7,602
Black steel sheets	139,105	148,742	95,443	175,640	13,515	13,302	8,211	14,195
Black iron sheets	14,158	11,005	14,771	19,425	1,655	1,239	1,473	2,032
Hoop, band, and strip steel	38,244	34,141	40,938	46,838	3,502	2,943	3,124	3,445
Tin plate, terneplate, etc	124,499	160,997	161,385	250,736	14,792	19,430	18,587	28,760
Structural shapes, plain material	122,062	102,408	104,339	157,121	7,020	5,990	5,470	7,655
Structural materials, fabricated	78,396	70,786	73,463	77,808	6,713	6,978	5,793	6,952
Steel rails	267,409	208,496	151,690	187,760	10,274	7,951	6,155	7,643
Rail fastenings, switches, frogs, etc	39,589	36,113	35,367	41,768	3,784	3,486	3,250	3,344
Boiler tubes and welded pipe	185,907	200,951	229,792	275,399	20,189	20,969	22,818	26,522
Cast-iron pipes and fittings	28,065	28,771	32,206	34,130	4,732	4,477	3,901	4,099
Malleable-iron screwed pipe fittings	7,748	11,024	9,886	12,371	2,400	2,856	2,825	3,434
Barbed-wire and woven-wire fencing	74,846	90,444	71,117	50,718	6,737	6,970	5,234	3,719
Plain wire	92,232	37,047	35,598	31,311	8,075	3,362	3,190	2,710
Wire cloth and screening	1,960	1,631	1,854	1,989	851	695	744	746
Wire rope	6,256	4,187	4,376	4,779	1,675	1,220	1,258	1,443
Insulated wire and cable	1,450	978	642	738	687	398	268	276
Wire, other, and manufactures thereof	14,572	11,225	8,376	8,982	2,587	2,156	1,991	1,983
Wire nails	45,981	21,665	9,838	11,743	4,103	1,934	834	885
Nails other than wire, including tacks	8,759	7,886	8,318	7,924	1,945	1,605	1,519	1,356
Bolts, nuts, rivets, and washers, except track	18,907	17,495	16,962	13,220	3,823	2,931	2,819	2,409
Car wheels and axles	20,291	22,329	19,935	16,644	1,891	1,946	1,734	1,487
Iron castings	10,046	8,460	10,412	8,837	1,561	1,447	1,421	1,276
Steel castings	4,724	5,879	4,210	7,564	1,126	1,409	1,122	1,829
Forgings	3,019	1,714	2,171	2,644	689	428	556	533

[1] Totals include, besides items listed, ferromanganese, ferrosilicon, metal lath, and horseshoes.
Source: Bureau of Foreign and Domestic Commerce.

Of the individual heavy iron and steel products exported in 1926, boiler tubes and welded pipe was the greatest single item in point of quantity, followed by tin plate and terneplate, but in point of value of exports this order was reversed. (Table 20.) Steel rails, galvanized sheets, and black steel sheets were the products next in importance in point of magnitude. The general increase in exports for 1926 was shared by all the major products having exports amounting to more than 100,000 long tons. Chief of these was tin plate and terneplate with an actual increase of 89,000 tons, or 55 per cent, while black steel sheets with a percentage increase of 84 per cent had an actual quantitative increase of 80,000 tons. Exports of plain structural shapes were half as large again as in the previous year and plates were a third greater. Scrap, steel rails, steel bars, and boiler tubes increased more than 20 per cent, and ingots and galvanized sheets increased 15 and 11 per cent, respectively. A decline in exports occurred only among products of comparatively minor importance, the greatest decreases being in exports of barbed wire and woven wire fencing, 29 per cent, and of pig iron, 23 per cent.

Exports by Countries of Destination.

More than two-thirds of the entire exports of iron and steel in 1926 went to North and South American countries, which in 1925 had taken about seven-tenths. Canada, as in other years, was the largest buyer, more than 38 per cent of the total exports being consigned to that country. Japan again appeared as the second important market for these products, having taken almost twice as many tons as in 1925. Mexico and Cuba were next in importance. Exports to Mexico were about the same in both years, but Cuba took only two-thirds as much in 1926 as in 1925. Brazil, Chile, Peru, and Venezuela showed considerable increases over 1925, while Argentina and Colombia took less. Europe absorbed about the same quantity as the year before, the increase of 32 per cent in shipments to the United Kingdom being counterbalanced by a decrease of 44 per cent in exports to Italy. In addition to the doubling of exports to Japan, all other countries of the Far East, excepting China, showed increases for the year. There was a marked falling off in exports to Africa, exports to British South Africa, our chief market there, registering only 40 per cent of those of the previous year.

Table 21.—Exports of Heavy Iron and Steel, by Countries of Destination

[In long tons. For totals see Table 18]

Country	1925	1926
North and Central America and the West Indies	944,459	1,107,848
Canada and Newfoundland	616,362	834,758
Cuba	146,823	94,730
Mexico	102,412	100,791
Guatemala	17,600	10,125
Salvador	15,393	16,277
Panama	4,625	9,015
British West Indies	9,862	10,579
Other West Indies	16,458	17,271
Other Central America	14,924	14,294
South America	319,563	373,085
Argentina	87,296	60,105
Brazil	46,016	62,542
Chile	44,940	61,642
Colombia	77,336	71,128
Peru	17,895	37,819
Venezuela	35,231	68,116
Other countries	10,849	11,733
Europe	143,296	144,131
France	9,047	10,393
Italy	41,767	23,486
Rumania	1,995	2,591
Europe—Continued.		
Russia	3,562	3,073
Turkey	1,827	3,032
United Kingdom	52,261	68,765
Other countries	32,837	32,791
Far East	327,182	523,832
Australia	22,543	33,353
British Malaya	6,719	15,520
China	56,816	46,054
Dutch East Indies	25,194	41,024
India	25,750	37,097
Japan and Chosen	132,891	260,362
Kwangtung	1,802	20,249
Philippine Islands	46,896	57,554
Other Asia and Far Eastern markets	8,571	12,619
Africa	28,072	18,160
British South Africa	23,208	9,393
Egypt	3,314	5,761
Portuguese East Africa	981	2,299
Other Africa	569	707

Source: Bureau of Foreign and Domestic Commerce.

Exports of Miscellaneous Advanced Iron and Steel Manufactures.

In contrast with heavy products, exports of advanced iron and steel manufactures such as hardware, cutlery, stoves, etc. (including also aluminum ware), valued at $53,008,000 in 1926, decreased by 5 per cent from the previous year. There was a decline in quantitative exports of all articles listed in Table 22 except chains, tinware and galvanized ware, ball and rolled bearings, and needles. The values of certain articles for which no quantity figures are shown increased; stoves and furnaces increased 30 per cent, and iron and steel hardware other than builders' hardware increased 5 per cent. Although chains increased only 8 per cent in quantity of exports, the increase in value was 38 per cent, showing a considerable increase either in the average price or in the quantity of shipments.

Table 22.—Exports of Miscellaneous Advanced Iron and Steel Manufactures

Item	Quantity (thousands of unit specified)				Value (thousands of dollars)		
	Unit	1924	1925	1926	1924	1925	1926
Total					[1]55, 976	[2]68, 524	[2] 65, 140
Hardware	Pounds	33, 574			9, 447	9, 593	9, 940
Builders' hardware of iron and steel	do	15, 656			4, 805	2, 545	2, 537
Locks	Dozen		[3] 669	[3] 566		[3] 1, 868	[3] 1, 588
Other hardware of iron and steel	Pounds	17, 512			4, 291	4, 490	4, 700
Builders' hardware of brass and bronze.	do	406			351	691	815
Tools					[1] 15, 824	20, 261	19, 499
Axes	Number	1, 505	1, 401	1, 130	1, 569	1, 341	1, 055
Files and rasps	Dozen	2, 051	2, 271	2, 151	2, 531	2, 912	2, 674
Hammers and hatchets	Number	705	805	761	349	419	363
Wood-cutting saws	do	(4)	(4)	630	2, 498	970	792
Metal-cutting and other saws	do	(4)	(4)	26, 228		1, 494	1, 109
Shovels and spades	do	604	560	489	507	488	432
Other tools					[1] 8, 371	12, 638	13, 075
Cutlery					9, 259	13, 094	9, 406
Safety razors	Dozen	390	432	335	1, 608	1, 417	883
Safety-razor blades	do	7, 477	13, 782	8, 949	4, 837	8, 572	5, 930
Table and kitchen cutlery	do	416	456	378	623	697	589
Other cutlery and parts					2, 191	2, 409	2, 004
Household utensils	Pounds	9, 741	8, 512	6, 284	1, 968	1, 941	1, 932
Aluminum ware	do	1, 027			571	629	531
Enameled ware of iron and steel	do	2, 918	3, 212		628	626	662
Tinware and galvanized ware	do	5, 796	5, 300	6, 284	769	685	740
Plumbing fixtures of enameled iron and steel.	Number	121	72	71	1, 821	1, 221	1, 237
Chains	do	13, 589	16, 189	17, 444	2, 308	2, 531	2, 766
Lamps and illuminating devices [5]					3, 267	2, 926	3, 073
Needles, hand and machine	Thousand	89	80	81	715	837	712
Stoves and furnaces [5]					3, 451	3, 775	4. 925
Tin cans, finished or unfinished	Pounds	6, 960	9, 391	8, 991	791	991	929

[1] Not comparable with later years.

[2] Includes in addition to items specified, metal-working, wood-working, and mechanics' tools, safes, and vaults (including bank), earthenware, plumbing fixtures, and abrasives.

[3] Included in builders' hardware prior to 1925.

[4] Figure not comparable.

[5] Except electric.

Source: Bureau of Foreign and Domestic Commerce.

Imports of Iron and Steel.

Imports of iron and steel into the United States consist largely of crude products for further manufacture, such as pig iron, scrap, ferro-alloys, and crude steel. Imports have in all recent years been small in comparison with production, but the increase of more than 67 per cent in 1925 reacted with considerable force, particularly upon the merchant pig iron branch of the industry. In 1926 there was a further increase of 15 per cent in quantity of imports of foreign iron and steel products. (Table 23.) The slightly lower price level of the year is reflected in the increase of only 3 per cent in the value of imports of certain important products as compared with an increase of 12 per cent in quantity. As in former years pig iron was the most important single product imported, followed by steel ingots, structural shapes, scrap, and cast-iron pipe. Imports of structural shapes, which amounted to 121,000 tons, valued at $3,923,000, in 1926, showed an increase of 57 per cent in quantity and were 11 times as large as in 1923.

Table 23.—Imports of Leading Iron and Steel Products, by Classes

Article	Quantity (long tons)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total [1]	**719, 513**	**479, 658**	**838, 513**	**929, 956**	**27, 804**	**17, 554**	**26, 559**	**27, 316**
Pig iron	367, 778	209, 109	441, 425	445, 773	9, 005	3, 741	7, 951	7, 709
Ferrosilicon	11, 735	11, 991	4, 556	13, 124	1, 054	1, 235	585	1, 386
Ferromanganese, manganese metal and alloys	88, 570	47, 811	68, 077	43, 882	8, 605	4, 055	6, 578	4, 134
Scrap	162, 068	66, 841	99, 815	86, 725	2, 783	1, 026	1, 361	991
Steel ingots, blooms, billets, slabs, steel bars, etc	22, 671	39, 024	85, 886	135, 134	2, 372	3, 074	4, 643	5, 737
Bar iron	7, 754	4, 325	11, 740	5, 624	452	262	538	291
Structural shapes	10, 674	43, 245	77, 291	121, 100	682	1, 904	2, 863	3, 923
Cast-iron pipe	---------	---------	---------	83, 873	--------	---------	---------	2, 450
Rails	29, 706	43, 358	36, 872	50, 748	963	1, 313	1, 051	1, 449
Sheets and plates	4, 572	6, 067	4, 481	15, 611	408	326	342	707
Tin plate, terneplate, etc	10, 037	1, 036	382	2, 160	1, 167	158	108	297
Wire rods	3, 948	6, 851	7, 988	10, 075	313	460	539	692

[1] Articles listed only.

Source: Bureau of Foreign and Domestic Commerce.

WORLD PRODUCTION AND TRADE

Production of Iron Ore, Pig Iron, and Steel Ingots.

The estimated total world production of pig iron in 1926 was 78,483,000 metric tons (Table 24), slightly less than in 1913, but much above 1923 and 1924, and 2 per cent greater than in 1925. The output of the United States represented a somewhat higher proportion of the total than the year before, but there were also notable increases in production in France, Belgium, Luxemburg, the Saar, Czechoslovakia, and Russia. There was a smaller production in Germany by over 500,000 tons. The output of Great Britain receded almost 4,000,000 tons as a direct result of the coal strike which paralyzed her iron and steel industry. From the fourth rank, in 1925, as a pig-iron producing country, Great Britain fell to sixth place in 1926, being surpassed by both Belgium and Luxemburg.

The increase in world production of steel ingots and castings of 1½ per cent in 1926 was in about the same proportion as the increase in pig iron production, and the changes in the several countries were similar, except in the case of Germany, where there was an increase in the production of steel ingots and castings of 100,000 tons as contrasted with a decrease in the production of pig iron of 500,000 tons. The 1926 output of steel ingots and castings in Great Britain was less than half that of 1925, showing a decrease of approximately 4,000,000 tons. The United States production of both pig iron and steel ingots and castings was more than half the world total.

Table 24.—World Production of Iron and Steel

NOTE.—Figures for 1913 are for production within present boundaries.

[Thousands of metric tons]

Country	Pig iron					Steel ingots and castings				
	1913	1923	1924	1925	1926	1913	1923	1924	1925	1926
World total[1]	**79, 371**	**69, 705**	**68, 142**	**76, 811**	**78, 483**	**75, 759**	**78, 420**	**78, 637**	**90, 332**	**91, 671**
United States	31, 463	41, 009	31, 910	37, 290	40, 005	31, 803	45, 665	38, 541	46, 122	[2] 47, 890
Per cent of total	39. 6	58. 8	46. 8	48. 5	51. 0	42. 0	58. 2	49. 0	51. 1	52. 2
Germany	10, 916	4, 941	7, 833	10, 178	9, 642	11, 768	6, 208	9, 703	12, 193	12, 332
France	9, 071	5, 468	7, 694	8, 495	9, 395	6, 976	5, 302	6, 901	7, 446	8, 386
Great Britain	10, 425	7, 560	7, 425	6, 336	2, 481	7, 787	8, 618	8, 333	7, 516	3, 618
Belgium	2, 485	2, 148	2, 824	2, 541	3, 401	2, 467	2, 297	2, 874	2, 410	3, 381
Luxemburg	2, 548	1, 407	2, 157	2, 344	2, 512	1, 182	1, 201	1, 887	2, 081	2, 244
Russia	4, 207	384	760	1, 550	2, 439	4, 246	726	1, 136	2, 149	3, 125
Saar Territory	1, 378	1, 021	1, 390	1, 452	1, 620	1, 773	997	1, 458	1, 575	1, 728
Czechoslovakia	1, 128	817	983	1, 166	1, 230	(3)	1, 000	1, 350	1, 279	1, 574
India	209	617	887	894	904	[4] 68	219	341	456	457
Japan incl. Chosen	240	700	686	784	728	305	959	1, 099	1, 300	1, 200
Canada	1, 032	924	629	606	788	1, 060	899	661	765	790
Italy	427	236	304	482	529	846	1, 142	1, 359	1, 786	1, 620
Spain	425	400	497	468	467	[5] 242	463	540	580	625
Australia	47	335	423	446	457	213	203	311	357	366
Sweden	730	283	513	432	456	591	271	501	475	494
Austria	[6] 1, 064	344	267	380	332	[3] 2, 184	500	370	464	433
Poland	1, 031	520	336	315	327	1, 601	1, 132	678	792	796
China	152	264	305	305	305	102	132	152	152	152
Hungary	190	124	116	93	160	443	283	239	231	257

[1] Includes estimated production of countries not listed in table and of listed countries for which data are not available.
[2] Ingots only.
[3] Production of Czechoslovakia included with that of Austria.
[4] 1914.
[5] Rolled iron and steel.
[6] Approximate figure.

Sources: Iron Trade Review, International Institute of Statistics, and other sources.

It is important to note that the three largest producers of iron ore together produced, in 1926, nearly two-thirds of the world output of both pig iron and steel ingots and castings, although iron ore is produced in considerable quantities in a number of countries in which the output of finished iron and steel is small, such as Sweden, Spain, and Cuba. A large part of Germany's pre-war production of iron ore was in Alsace-Lorraine, which has been transferred to France. Other changes in boundaries greatly affect the comparability of statistics for a number of European countries.

The year 1925 marked the entering of American capital into the mining industry of Europe through extensive concessions for mining manganese in the Georgian district of Soviet Russia, but according to reports considerable difficulty has been encountered in disposing of this manganese ore at profitable prices after paying heavy expenses and royalties provided for in the concession. Production is reported as having been reduced considerably.

Chart IV.—**OUTPUT OF PIG IRON AND STEEL INGOTS AND CASTINGS, IN PRINCIPAL PRODUCING COUNTRIES**

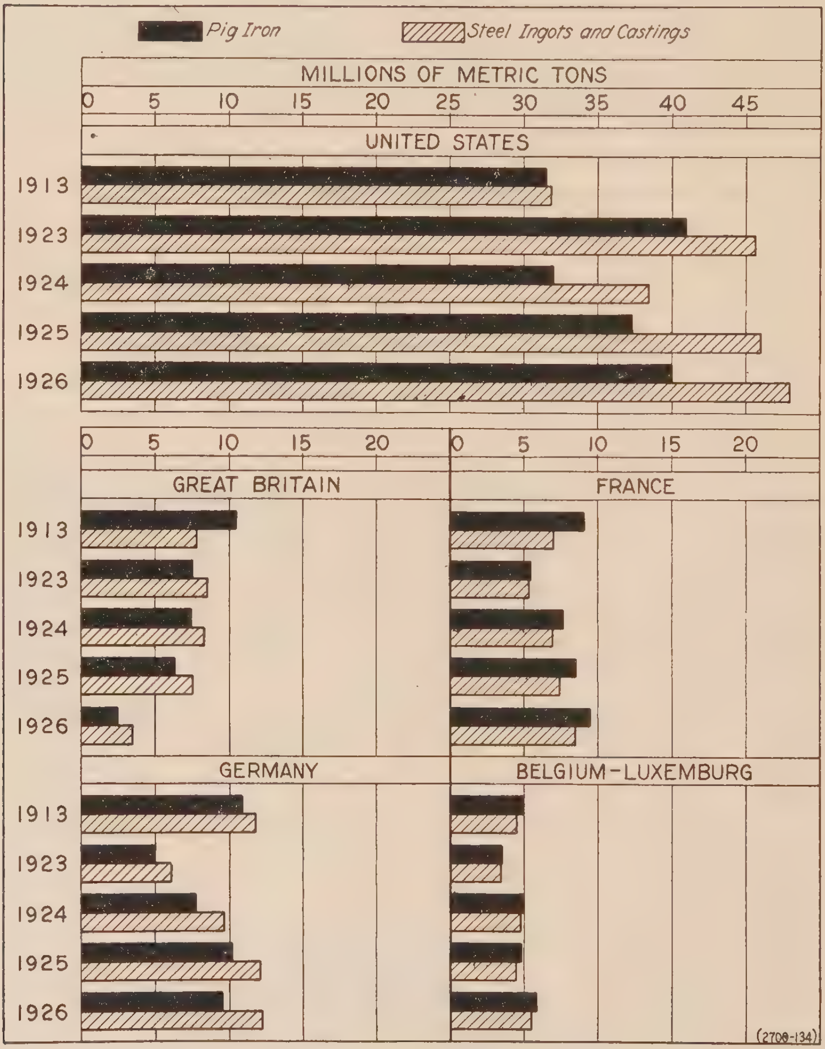


Table 25.—Production of Iron Ore, by Principal Countries

NOTE.—Changes in boundaries of certain European countries affect comparison between pre-war and postwar statistics, no adjustment of the former to conform to present boundaries having been made. Austria has lost part of its production to Czachoslovakia and Hungary part of its production to Rumania and Yugoslavia. Germany has lost part of its production to France and, beginning with 1922, part to Poland. Russia has lost part of its production to Poland.

[In thousands of long tons]

Country	1913	1924	1925	Country	1913	1924	1925
North America:				Europe—Continued			
Cuba [1]	1,582	295	558	Spain	9,706	4,540	4,373
Newfoundland [1]	1,434	655	900	Sweden	7,357	6,397	8,039
United States	61,977	54,267	61,908	United Kingdom	15,997	11,228	10,306
South America:				Asia:			
Chile	14	972	1,313	China	[3] 416	1,083	1,181
Europe:				India	371	1,445	(2)
Austria-Hungary	5,234	--------	--------	Africa:			
Austria	--------	703	1,014	Algeria	1,328	1,597	1,753
Czechoslovakia	--------	1,155	1,083	Morocco	[4] 183	(2)	787
France	21,572	28,534	35,176	Tunisia	588	785	713
Germany	28,156	4,217	(2)	Oceania:			
Luxemburg	7,218	5,249	6,567	Australia	101	[5] 726	747
Russia	9,364	915	1,965				

[1] Shipments.

[2] Data not available.

[3] From Layeh deposits only.

[4] For Morocco in 1915.

[5] Not including Queensland.

Source: Bureau of Mines, Department of Commerce.

Export Trade of Principal Countries.

Germany was the greatest exporter of iron and steel in 1926. Great Britain had held the lead in amount of exports for several years up to 1924, but in 1925 France succeeded to first place. The order was again changed in 1926, Germany's increase in exports of 75 per cent as compared with 1925 placing her in the lead, followed by Belgium-Luxemburg whose increase of 18 per cent gave her second rank. France took third place and showed a decline of 5 per cent as compared with 1925, while Great Britain showed a loss of 16 per cent in exports and an increase of 39 per cent in imports, owing to the protracted British coal strike.

The formation of the Steel Entente among the principal producers of iron and steel in continental Europe has been said to be of greater importance for promoting mutual understanding than any event of recent years. The agreement to which France, Germany, Belgium, Luxemburg, and the Saar were parties became effective from October 1, 1926, to April 1, 1931. Although difficulties have arisen over certain questions, all have so far been settled to the satisfaction of the members, and the entente continues in force with some evidence of having accomplished its purpose which is to regulate the production of steel in accordance with the volume of demand. Other European countries have evinced interest in the organization, and may eventually become identified with it.

Table 26.—Foreign Iron and Steel Trade of Great Britain, France, Belgium-Luxemburg, and Germany

[For Great Britain in thousands of long tons; other countries in thousands of metric tons of 2,204.6 pounds]

Article	Exports		Imports	
	1925	1926	1925	1926
Great Britain	**3, 436**	**2, 887**	**2, 678**	**3, 723**
Pig iron and ferro-alloys	560	313	286	492
Ingots, blooms, billets, and slabs	13	6	1, 212	1, 637
Iron bars, rods, angles	37	22	232	281
Steel bars, rods, angles	243	185	294	402
Structural steel	64	45	109	142
Galvanized sheets	713	662	-------	------
Tin plate	511	381	-------	------
Other plates and sheets	355	284	176	284
Rails	217	171	32	29
Railway material, other than rails	203	135	18	9
Tubes, pipes and fittings	286	295	88	99
Wire	74	69	58	66
Other	159	319	173	282
France	**3, 975**	**3, 759**	**191**	**194**
Pig iron and ferro-alloys	710	707	51	50
Scrap	526	221	41	31
Ingots, blooms, billets and bars	2, 096	2, 054	28	53
Plates and sheets	216	260	37	19
Rails	241	322	1	2
Wire	163	163	9	9
Other	23	32	24	30

Article	Exports		Imports	
	1925	1926	1925	1926
Belgium-Luxemburg	**3, 274**	**3, 847**	**591**	**664**
Pig iron	97	157	325	330
Scrap	108	129	61	65
Ingots, blooms, billets and sheet bars	826	888	66	127
Bars	1, 119	4	21	4
Structural steel	295	397	17	17
Plates and sheets	283	337	28	29
Rails	220	217	6	8
Tubes, pipes and fittings	39	24	13	11
Nails and tacks	72	126	1	6
Other	215	1, 568	53	67
Germany	**3, 049**	**5, 348**	**1, 435**	**1, 261**
Pig iron and ferro-alloys	223	513	221	111
Scrap	286	447	249	207
Ingots, blooms, billets, slabs and sheet bars	108	651	214	26
Bar iron, hoops, and girders	581	1, 203	474	394
Plates and sheets	425	588	73	46
Rails and accessories	423	516	100	151
Tubes, pipes and fittings	298	364	34	5
Wire	340	572	49	62
Nails and tacks	53	56	(1)	(1)
Other	312	438	21	21

[1] Less than 500 tons.

Sources: Trade statistics of the respective countries.

COPPER

SUMMARY.—The total production of new copper by refineries in the United States during 1926 was 1,173,000 short tons, of which approximately 869,000 tons were derived from domestic ore. This was an increase of 6 per cent over the production of 1925, but was only slightly larger than in 1924.

Consumption of new copper, as indicated by the amounts withdrawn on domestic account, was the greatest ever recorded, showing an increase of more than 14 per cent over consumption in 1925, the previous record year. The apparent exportable surplus of United States production of new refined copper amounted to 371,675 short tons, a decrease of 7 per cent as compared with that of the year before.

Although imports of copper increased 71 per cent in 1926, there had been an unusual decrease during the previous year so that the 1926 level was only 17 per cent higher than that of 1924, and only 6 per cent above 1923. On the other hand exports of refined copper fell off almost 12 per cent in 1926, being 16 per cent lower than in 1924, the postwar peak. In 1926 net exports, or excess of exports over imports, declined 21 per cent, this change being effected by both the increase in imports and the decrease in exports of refined copper. There was an increase of 10 per cent in stocks of refined copper, which amounted to 68,500 tons, at the end of the year. Stocks were exceptionally low at the end of both 1925 and 1926, those at the later date being only 56 per cent of stocks at the end of 1924.

The average price of electrolytic copper during 1926 was 13.8 cents, as compared with 14 cents in 1925 and 13 cents in 1924. The highest average price was in August, but prices declined each month from September to the end of the year, the December average being 13.3 cents per pound.

Chart V.—PRICES OF COPPER, LEAD, AND ZINC

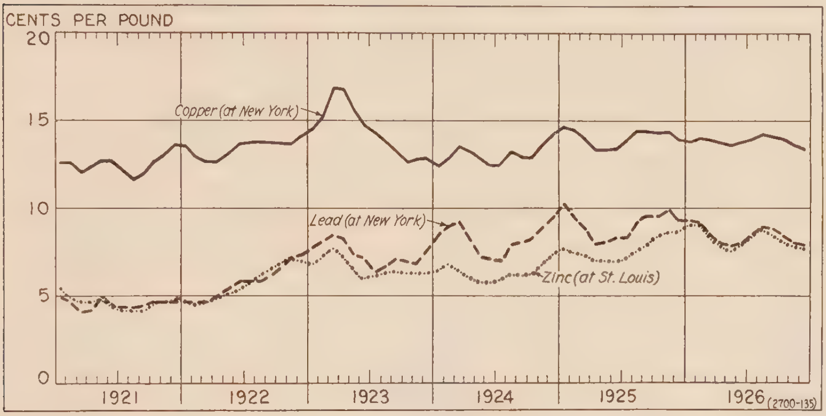


Table 27.—Refined Copper Production, Imports, Exports, Stocks, and Withdrawals on Domestic Account

[Short tons of 2,000 pounds]

Item	1913	1921	1922	1923	1924	1925	1926 [1]	Per cent change from 1925
Refinery production, new copper:								
From domestic ore	618, 412	304, 707	452, 335	732, 082	837, 107	841, 448	869, 000	+3. 3
From foreign ore	189, 122	170, 682	175, 423	257, 835	292, 931	260, 839	304, 000	+16. 5
Total	807, 534	475, 389	627, 758	989, 918	1, 130, 038	1, 102, 287	1, 173, 000	+6. 4
Old copper refined (secondary copper)	136, 500	217, 300	335, 900	410, 900	388, 300	420, 210	(2)	
Imports, refined copper	(3)	34, 625	51, 572	[4] 80, 356	72, 955	49, 887	85, 283	+71. 0
Exports, refined copper [5]	408, 956	304, 519	352, 513	396, 037	536, 122	511, 168	450, 457	−11. 9
Stocks refined copper end of year	45, 193	229, 500	108, 000	132, 000	121, 500	62, 000	68, 500	+10. 5
Withdrawals on domestic account:								
New copper	406, 134	305, 494	448, 317	650, 237	677, 371	700, 506	801, 325	+14. 4
Old copper	136, 500	217, 300	335, 900	410, 900	388, 300	420, 210	(2)	

[1] Preliminary.
[2] Not yet available.
[3] Not reported separately.
[4] Revised figures.
[5] Includes refined copper in ingots, bars, or other simple forms and rods. Figures for 1913, 1920, 1921, and 1922 include also unrefined black blister and converter copper, the quantity of which, however, was small.

Source: Bureau of Mines, Department of Commerce.

Production, Stocks, and Consumption.

The United States leads the world in the mining of copper, producing from domestic ore in 1926 about 54 per cent of the estimated world total. Our total production of new refined copper during the year was 1,173,000 tons, consisting of 869,000 tons from domestic ore and 304,000 tons from foreign ore. (Table 27.) This exceeded by 4 per cent the postwar record output of 1924. A large part of the foreign copper refined in the United States comes from mines in Mexico, Chile, Canada, Peru, and the Katanga District (Belgian Congo). Smelter output of unrefined copper from domestic ore was 871,000 tons, 4 per cent more than in 1925 and exceeded only during the war years 1916, 1917, and 1918. (Table 28.) The output of the smelters and mines, as in each of the three preceding years, was quite steady from month to month. (Table 29.)

Table 28.—Smelter Output of Unrefined Copper

[Quantities in short tons of 2,000 pounds; values in thousands of dollars]

Yearly average or year	Total production, quantity	Smelter output from domestic ore		Year	Total production, quantity	Smelter output from domestic ore	
		Quantity	Value			Quantity	Value
1871–1875		17, 136	8, 895	1915	843, 514	694, 005	242, 902
1876–1880		24, 976	9, 679	1916	1, 149, 050	963, 925	474, 288
1881–1885		58, 867	17, 236	1917	1, 138, 930	943, 060	514, 911
1886–1890		105, 214	30, 345	1918	1, 154, 290	954, 267	471, 408
1891–1895	[1] 187, 502	169, 328	37, 266	1919	751, 572	643, 210	239, 274
1896–1900	[2] 282, 384	265, 544	74, 424	1920	([5])	604, 531	222, 461
1901–1905	391, 849	366, 095	103, 859	1921	287, 250	252, 793	65, 221
1906–1910	536, 997	490, 249	150, 924	1922	565, 570	475, 143	128, 289
1911–1915	749, 499	610, 313	185, 592	1923	833, 735	717, 500	210, 945
1916–1920	[3] 1,048,460	821, 799	384, 470	1924	898, 464	817, 125	214, 087
1921–1925	[4] 811, 276	619, 999	171, 275	1925	947, 333	837, 435	237, 832
1910	668, 639	540, 080	137, 180	1926 [6]	984, 135	871, 000	240, 396
1911	668, 927	548, 616	137, 154				
1912	777, 414	621, 634	205, 139	Per cent change from 1925	+3. 9	+4. 0	+1. 1
1913	758, 398	612, 242	189, 795				
1914	699, 242	575, 068	152, 968				

[1] For the year 1895.
[2] Average for 1897–1900.
[3] Average for 1916–1919.
[4] Average for 1922–1925.
[5] Not available.
[6] Preliminary.

Sources: American Bureau of Metal Statistics; Stevens's Handbook, Mineral Industry; and Bureau o Mines, Department of Commerce.

Table 29.—Production of Primary Copper, by Mines and Smelters, by Months

NOTE.—In short tons (2,000 pounds). Production by mines represents copper content of ore produced by mines in the United States, not actual smelter output; hence annual totals do not agree exactly with those in Table 28. Production by smelters represents copper content of blister produced by smelters in the United States and includes copper obtained from foreign ore, concentrates, matte, or other material; also some blister from the treatment of secondary material.

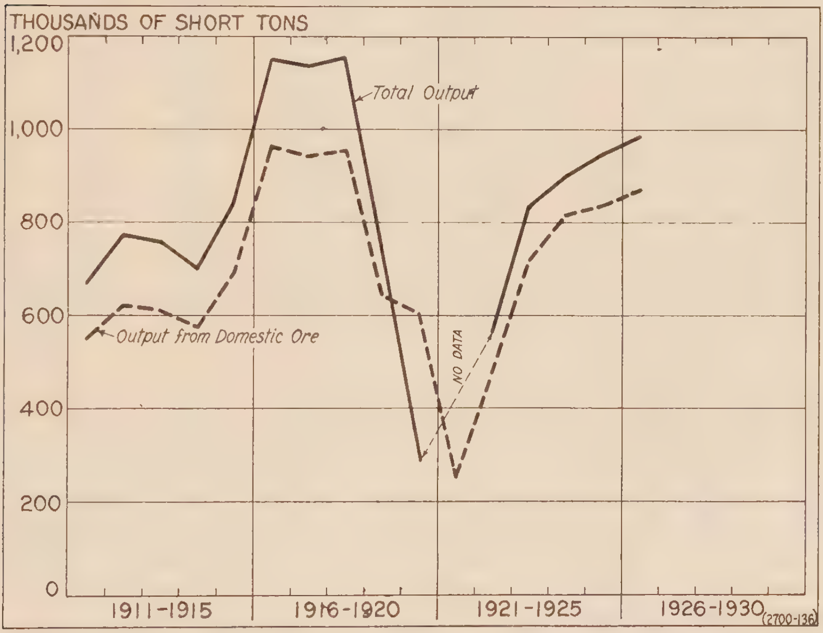
Month	By mines in United States						By smelters from domestic and foreign ores, etc.					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	42, 964	12, 924	56, 134	66, 631	74, 789	71, 026	46, 224	22, 371	62, 880	75, 734	82, 676	78, 576
February	38, 254	18, 707	51, 368	65, 681	68, 967	68, 131	41, 552	28, 883	57, 845	73, 791	78, 237	75, 630
March	44, 563	31, 153	60, 781	65, 181	74, 901	75, 728	48, 394	38, 812	69, 676	74, 338	87, 109	80, 719
April	25, 553	38, 513	59, 078	66, 073	70, 667	73, 454	33, 107	40, 817	67, 533	71, 072	79, 149	85, 951
May	12, 117	46, 024	62, 718	65, 608	70, 574	73, 542	17, 444	46, 024	71, 167	75, 734	77, 041	85, 025
June	9, 716	47, 611	62, 740	63, 933	59, 894	71, 317	12, 681	51, 973	69, 109	74, 948	76, 587	77, 166
July	8, 894	46, 743	63, 071	64, 787	68, 507	72, 228	12, 082	53, 164	69, 239	74, 072	76, 335	76, 479
August	10, 706	49, 863	65, 865	66, 756	68, 090	72, 014	13, 440	54, 223	71, 723	73, 074	72, 861	77, 613
September	10, 463	47, 487	62, 255	63, 800	67, 720	72, 672	15, 204	55, 675	72, 247	74, 390	76, 571	80, 320
October	12, 306	51, 686	66, 035	68, 989	71, 042	75, 099	15, 774	58, 145	76, 272	81, 003	83, 239	87, 012
November	11, 173	50, 804	63, 885	68, 291	67, 400	74, 947	16, 460	57, 743	73, 575	74, 975	79, 292	92, 768
December	9, 297	52, 338	64, 832	67, 647	69, 566	72, 396	14, 888	57, 740	72, 469	75, 333	79, 030	86, 907

Sources: American Bureau of Metal Statistics, and Engineering and Mining Journal.

Stocks of refined copper in the hands of domestic refineries on December 31, 1926, were about 68,500 tons, 10 per cent greater than at the end of the year before. (Table 27.) The stocks of blister copper and material in process of refining, at smelters, in transit to refineries, and at refineries on December 31, were 227,429 short tons, a little more than in 1925.

Consumption of new copper in the United States, 801,500 short tons, was greater during 1926 than in any previous year (Table 27), exceeding the record in 1925 by about 14 per cent and being almost twice as great as in 1913. The superior utility of copper for many purposes for which it was scarcely used at all a few years ago has been demonstrated by research and experiment, notable examples of these new uses being washing machines and range boilers. The new demand for radio instruments and electric refrigeration continues to be a factor of increasing magnitude.

Chart VI.—SMELTER OUTPUT OF UNREFINED COPPER



World Production.

World production of copper and the production of principal countries as compiled by the Bureau of Mines are shown in Table 30. Complete data for 1926 are not yet available. The American Bureau of Metal Statistics estimates the total world smelter production in 1926 at 1,476,937 metric tons compared with its estimate of 1,434,666 metric tons for 1925, an increase of 3 per cent. Among the most important producing countries other than the United States, Chile had the greatest increase in output over 1925 with a total of 202,319 metric tons. The 1926 production of Canada, Mexico, and Peru showed increases of 14, 5, and 4 per cent, respectively. The output of Spain and Portugal combined, of Germany, and of Japan showed little change, while there was a falling off of 9 per cent in African production. Of the less important producing countries, Yugoslavia's output increased 33 per cent and Austria's 12 per cent, but most other countries showed declines in production.

Table 30.—World Production of Copper by Smelters

[Metric tons of 2,204.6 pounds]

Country	1913	1921	1922	1923	1924	1925
World total	**983, 562**	**557, 591**	**848, 157**	**1, 229, 061**	**1, 342, 068**	**1, 385, 269**
United States	555, 422	229, 332	431, 047	650, 912	741, 283	759, 708
Per cent of total	56. 5	41. 1	50. 8	53. 0	55. 2	54. 8
Canada	34, 916	21, 600	19, 450	39, 409	47, 381	50, 553
Cuba	3, 400	8, 200	11, 400	10, 600	10, 600	14, 500
Mexico	52, 800	15, 228	26, 978	53, 372	49, 113	51, 336
Bolivia	4, 029	10, 592	10, 531	10, 049	7, 439	7, 235
Chile	42, 263	59, 239	129, 575	182, 384	189, 571	190, 198
Peru	27, 776	33, 284	36, 408	44, 166	33, 938	36, 957
Austria-Hungary	4, 100	----------	----------	----------	----------	----------
Austria	----------	4, 277	4, 593	4, 833	3, 848	3, 379
Germany	25, 300	15, 514	17, 733	18, 467	22, 944	23, 000
Norway	2, 741	1, 348	80	67	71	251
Portugal	5, 800	1, 600	600	400	700	1, 000
Russia	33, 694	4, 668	2, 000	2, 000	3, 300	5, 400
Spain	31, 248	36, 345	25, 139	45, 266	36, 346	39, 409
Yugoslavia	----------	4, 144	5, 354	6, 788	8, 101	7, 301
Japan	66, 501	54, 092	54, 126	59, 346	62, 583	65, 692
Australia	45, 334	11, 147	12, 703	17, 997	14, 807	12, 007
Belgian Congo	7, 407	30, 464	43, 362	57, 886	85, 570	90, 104
Other countries	40, 831	16, 517	17, 078	25, 119	24, 473	27, 239

Source: Bureau of Mines, Department of Commerce.

Census Statistics.

Census statistics of the copper smelting and refining industry are shown in Table 31. There was a decline between 1923 and 1925 in the number of establishments engaged in this industry and also in the average number of wage-earners employed, but the value of products was 6 per cent greater in 1925 than at the time of the previous census. The cost of materials constituted between 85 and 90 per cent of the value of products in both 1923 and 1925.

Table 31.—Copper Smelting and Refining Industry

NOTE.—There is large duplication in the cost of materials and value of products for the industry as a whole, due to the refining by certain establishments of copper smelted by other establishments.

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	47	11, 324	61, 630	$8, 529, 021	$122, 174, 129	$165, 131, 670	$42, 957, 541
1909	38	15, 628	158, 126	13, 395, 719	333, 531, 638	378, 805, 974	45, 274, 336
1914	37	17, 731	194, 980	16, 149, 251	379, 157, 030	444, 021, 958	64. 864. 928
1919	34	17, 345	321, 610	25, 723, 371	584, 410, 173	651. 101, 591	66, 691, 418
1921	28	8, 293	(1)	11, 199, 279	205, 903, 896	234, 895, 245	28, 991, 349
1923	29	16, 777	332. 943	35, 459, 160	554. 099, 924	625, 432, 965	71, 333, 041
1925	26	15, 588	326, 509	22, 641, 626	573, 190, 428	665, 176, 767	91, 986, 339

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Price Movement and Market Conditions.

During 1926 the prices of copper (Table 32) continued below prewar levels, in contrast with most other commodities which are much higher than before the war. This is a result of improved methods, especially those for extracting the metal from low-content ores. The New York price of electrolytic ingots averaged 13.8 cents per pound in 1926 or 1½ per cent lower than in 1925. The January average of 13.8 cents was lower than for the opening month of the year preceding. Prices continued strong through the third quarter, being the highest for the year in August and September. Rumors of overproduction which became current in October caused a drop in price during the last three months, and the average price in December was the lowest of the year, 13.3 cents per pound. This was 4 per cent lower than in December, 1925. Stocks of refined and marketable copper throughout the world increased comparatively little, production and consumption having maintained a very close balance during the year.

Table 32.—Prices of Copper: Electrolytic Ingots at New York

[Cents per pound]

Yearly average or year	Price	Month	1921	1922	1923	1924	1925	1926
1891–1895	(1)	January	12.6	13.5	14.5	12.4	14.7	13.8
1896–1900	7.3	February	12.6	12.9	15.4	12.7	14.5	14.0
1901–1905	13.9	March	12.0	12.6	16.8	13.5	14.0	13.9
1906–1910	15.6	April	12.4	12.6	16.7	13.2	13.3	13.7
1911–1915	15.0	May	12.7	13.1	15.4	12.8	13.3	13.6
1916–1920	23.0	June	12.7	13.6	14.7	12.3	13.4	13.7
1921–1925	13.5							
1919	18.7	July	12.2	13.7	14.3	12.4	13.9	13.9
1920	17.5	August	11.6	13.7	13.8	13.2	14.5	14.2
1921	12.5	September	12.0	13.7	13.3	13.0	14.4	14.1
1922	13.4	October	12.7	13.6	12.6	13.0	14.3	13.9
1923	14.4	November	13.0	13.6	12.7	13.6	14.4	13.6
1924	13.0	December	14.0	14.1	12.8	14.3	13.9	13.3
1925	14.0							
1926	13.8							

[1] Not available.

Source: Engineering and Mining Journal-Press.

Foreign Trade.

The United States, having the greatest copper smelting and refining industry in the world, imports from countries which have less adequate facilities, large quantities of copper ore (usually concentrated) and unrefined copper, and also a considerable amount of refined copper. (Table 36.) The net exportable surplus of refined copper produced from domestic ore in 1926 was about 86,000 tons, but actual exports were more than five times that quantity.

Exports of copper in all forms amounted to 482,693 short tons, valued at $141,204,000 in 1926. This was 59,000 tons less than the exports in 1925, and 75,000 tons below the postwar peak of 1924. Imports, however, were greater during 1926 than in any postwar year, being 389,721 tons, valued at $99,742,000, an increase of about 19 per cent in both quantity and value over 1925.

Table 33.—Exports and Imports of Copper

NOTE.—Exports do not include the small quantities of copper ore and unrefined copper; imports include the copper content of such ore and unrefined copper, these being large items.

[Quantities in short tons; values in thousands of dollars]

Yearly average or year	Exports		Imports		Year	Exports		Imports	
	Quantity	Value [1]	Quantity	Value [1]		Quantity	Value [1]	Quantity	Value [1]
1891-1895 [2]	47,219	14,392	5,096	896	1919	258,319	130,790	214,694	86,271
1896-1900 [2]	133,226	36,745	18,927	5,866	1920	312,027	141,717	242,835	90,019
1901-1905 [2]	185,250	54,942	56,597	23,263	1921	314,402	97,898	175,236	45,785
1906-1910 [2]	284,113	92,334	130,059	38,085	1922	371,520	103,844	270,507	66,829
1911-1915 [2]	409,482	123,655	176,601	46,125	1923	414,657	129,220	338,325	95,988
1916-1920 [3]	244,948	208,909	374,561	103,805	1924	557,958	156,646	384,511	96,184
1921-1925	440,128	129,755	299,029	77,811	1925	542,104	161,166	326,567	84,270
1918	373,845	206,732	287,903	133,525	1926	482,693	141,204	389,721	99,742

[1] Including value of certain products for which quantity figures are not available.
[2] Fiscal years ended June 30.
[3] Average for period July 1, 1915 to Dec. 31, 1920.

Source: Bureau of Foreign and Domestic Commerce.

Exports of ingots and bars in 1926 constituted about 89 per cent of total exports of copper, all other items being comparatively unimportant, yet there was a decline in the quantity of exports of this class of about 60,000 tons. Exports of copper rods fell off 18 per cent, and exports of plates and sheets were less than half as great as in 1925. Old and scrap copper exports increased by one-half, and there were slight increases in the other items listed in Table 34.

Imports of copper ore fell off 6 per cent in quantity, the chief decline being in concentrates. All other copper imports increased as compared with the previous year. The total imports of copper in all forms in 1926 amounted to 389,721 short tons (all items reduced to copper-content basis) as compared with 326,567 tons in 1925. The greatest increase was in refined copper, the bulk of which comes from Chile. There was also a marked increase in imports of unrefined black blister and converter copper from Africa (exclusive of Portuguese Africa) and Peru, but there was a falling off in the supply from Chile. (Table 36.)

Among the countries which took large quantities of copper in 1926 the United Kingdom was the best market for total refined copper and manufactures, taking 102,334 short tons, or 21 per cent of our total copper exports. Of this quantity, 90,160 tons represented refined copper in ingots, bars, and other simple forms. France, our next best customer, received 89,763 tons of refined copper and manufactures, of which about 98 per cent was in ingots, bars, and similar forms. Germany took a total of 83,633 tons, including 76,680 tons of ingots, having fallen to third place, whereas a year earlier it had imported more from the United States than either the United Kingdom or France. All European countries except France and Spain took less of our copper exports than in 1925. In general, other countries did not import from us as freely as during the previous year with the notable exception of Japan to which more than four times as great a quantity was shipped.

Table 34.—Domestic Exports and Imports of Copper

NOTE.—Prior to 1922 exports of insulated wire and cables and "other manufactures" were reported by value only and total quantity to that extent is not strictly comparable. Total value of imports includes a small miscellaneous item not reported by weight.

Item	Quantity (short tons of 2,000 pounds)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
DOMESTIC EXPORTS								
Grand total	**414, 657**	**557, 958**	**542, 104**	**482, 693**	**414, 157**	**156, 646**	**161, 166**	**141, 204**
Copper and manufactures:								
Refined ingots, bars, etc	364, 690	504, 312	484, 033	428, 062	364, 690	138, 298	140, 221	121, 231
Rods	31, 347	31, 309	27, 135	22, 245	31, 347	8, 965	8, 098	6, 857
Wire	4, 921	4, 872	5, 833	6, 535	4, 921	1, 702	2, 094	2, 248
Old and scrap copper	1, 772	2, 597	6, 053	9, 699	1, 772	566	1, 560	2, 175
Pipes and tubes	1, 307	1, 325	1, 392	1, 627	1, 307	672	697	840
Plates and sheets	2, 268	3, 386	6, 102	2, 516	2, 268	1, 332	2, 331	1, 075
Insulated wire and cables	5, 841	7, 736	8, 908	9, 276	5, 341	3, 896	4, 900	4, 816
Other manufactures	2, 282	2, 350	1, 728	---------	2, 281	1, 186	1, 035	1, 350
Ore and unrefined (copper content)	230	70	920	2, 733	230	29	233	612
IMPORTS								
Grand total	**338, 325**	**384, 511**	**326, 567**	**389, 721**	**285, 804**	**96, 184**	**84, 270**	**99, 742**
Ore, etc. (copper content), total	71, 527	73, 978	81, 664	76, 797	19, 006	17, 625	20, 287	19, 065
Ore	45, 076	52, 583	53, 821	53, 358	45, 076	12, 807	13, 582	13, 452
Concentrates	24, 970	20, 869	26, 977	22, 375	24, 970	4, 693	6, 492	5, 352
Regulus, coarse metal, etc.	1, 480	527	866	1, 065	204	125	213	261
Unrefined, black, converter	197, 632	235, 514	189, 667	221, 899	197, 632	59, 462	48, 870	56, 101
Refined copper	64, 234	72, 955	49, 887	85, 283	64, 234	18, 556	13, 831	23, 336
Old and clippings	2, 743	1, 855	5, 214	5, 501	2, 743	402	1, 189	1, 114
Composition metal, copper chief value	2, 101	104	53	241	2, 101	43	12	64
Manufactures of copper	88	104	82	---------	88	95	81	62

Source: Bureau of Foreign and Domestic Commerce.

Table 35.—Domestic Exports of Copper and Manufactures thereof, by Principal Countries of Destination

[Short tons of 2,000 pounds]

Country	Total refined copper and manufactures [1]		Refined in ingots, bars, and other simple forms		Country	Total refined copper and manufactures [1]		Refined in ingots, bars, and other simple forms	
	1925	1926	1925	1926		1925	1926	1925	1926
Total	**542, 104**	**482, 693**	**484, 033**	**428, 062**	Sweden	14, 706	12, 424	14, 553	12, 356
					United Kingdom	110, 450	102, 334	91, 876	90, 160
Belgium	46, 198	41, 076	45, 475	41, 029	Canada	22, 022	18, 080	12, 150	7, 644
Denmark	2, 245	1, 154	820	434	Mexico	2, 113	2, 873	470	709
France	73, 920	89, 763	72, 905	87, 575	India	2, 848	2, 743	1, 822	2, 208
Germany	119, 952	83, 633	114, 646	76, 680	China	6, 922	4, 298	6, 067	4, 084
Italy	63, 925	41, 743	63, 236	41, 479	Japan	4, 288	21, 561	4, 247	18, 671
Netherlands	47, 319	32, 701	46, 140	32, 143	Cuba	4, 085	2, 397	7	8
Spain	3, 886	4, 837	3, 539	4, 828	Other countries	17, 224	21, 076	6, 080	8, 054

[1] Figures for countries for 1926 do not include small quantities of "other manufactures."

Source: Bureau of Foreign and Domestic Commerce.

Our total imports of copper increased from 326,567 short tons in 1925 to 389,721 tons in 1926. In both years Chile furnished approximately three-tenths of the total, whereas in 1913 her contribution had been slightly more than 10 per cent. Canada, Mexico, Peru, and Africa are also important sources of our supply. About seven-tenths of our imports consist of ore and unrefined copper. There was a slight decrease in imports of copper ore, a larger proportion coming from Canada and somewhat less from Chile as compared with 1925. Peru, Africa, and Mexico supplied most of our imports of unrefined black blister and converter copper, while Chile supplied about 98 per cent of the total imports of refined copper.

Table 36.—Imports of Copper by Principal Countries of Origin

[Short tons of 2,000 pounds]

Country	Total			Copper ore		Unrefined black blister and converter		Refined in ingots	
	1913	1925	1926 [1]	1925	1926	1925	1926	1925	1926
Total	**204,380**	**326,567**	**389,721**	**53,821**	**53,358**	**189,667**	**221,899**	**49,887**	**85,283**
Spain	20,866	11,659	19,132	4,449	6,740	7,210	12,392	--------	--------
Canada	34,207	50,165	53,390	20,786	23,805	25,250	22,481	5	--------
Mexico	65,189	49,487	52,628	1,110	1,431	35,889	41,160	--------	105
Cuba	3,661	16,655	10,921	2,993	2,717	--------	--------	--------	--------
Chile	20,769	100,647	116,353	22,277	16,537	29,900	15,683	48,085	83,436
Peru	25,430	36,590	47,719	297	533	36,162	46,954	--------	--------
Portuguese East Africa	--------	46,596	42,122	192	--------	46,385	41,657	--------	455
Other Portuguese Africa	--------	5	225	--------	--------	--------	225	--------	--------
Other countries	34,267	14,763	47,231	1,717	1,595	8,871	41,347	1,797	1,287

[1] Figures for countries for 1926 do not include small quantities of "other manufactures."

Source: Bureau of Foreign and Domestic Commerce.

LEAD

SUMMARY.—The United States production of new refined lead from domestic ore in 1926 was 680,685 short tons, surpassing the record production of 654,921 short tons in 1925 by 25,764 tons. Although the known lead deposits of the world are gradually becoming exhausted of cheaply produced ore, the past two years have shown that under favorable price conditions production increases. The paint and pigment industry, which was formerly the greatest consumer of lead, is fast shifting to substitute raw materials and gave first place to the storage-battery industry in 1926. More efficient methods of collecting and reclaiming used lead are making greater supplies from that source available from year to year. Although the annual average New York price of pig lead in 1926, 8.4 cents per pound, was 7 per cent lower than in 1925 it was higher than for any other year since 1917. Prices were highest at the beginning of the year, swinging downward to the low month of the year in May, followed by recovery and another decline toward the end of the year. The London and New York markets moved in parallel throughout the year. Exports of refined lead fell off more than 30 per cent as compared with 1925 while imports of lead ores and base bullion (lead content) increased 18 per cent.

Table 37.—Refined Lead Production, Imports, Exports, Stocks, and Apparent Consumption

[Short tons of 2,000 pounds]

Year	Production of refined lead			Imports of pigs, bars, and old	Exports of domestic and foreign lead [1]	Stocks end of year	Apparent consumption[1]
	Total	From domestic ore	From foreign ore				
1913	462,460	411,878	50,582	42	44,544	----------	408,226
1919	482,220	424,433	57,787	5,107	51,486	234	434,143
1920	529,657	476,849	52,808	35,719	20,093	1,322	538,020
1921	448,589	398,222	50,367	31,301	26,624	347	444,872
1922	532,662	468,746	63,916	3,551	38,178	----------	492,705
1923	618,322	543,841	74,481	21,099	50,735	2,617	573,543
1924	690,493	566,407	124,086	12,247	82,090	5,045	602,947
1925	766,969	654,921	112,048	7,021	103,520	8,162	655,655
1926 [3]	798,941	680,685	118,256	11,152	71,885	10,711	735,659

[1] Includes domestic exports of pigs, bars, and old produced from domestic and foreign ore, and exports of foreign lead imported in pigs and bars.

[2] Takes into account changes of stocks and exports of lead in manufactures with benefit of drawback.

[3] Preliminary.

Source: Bureau of Mines, Department of Commerce.

The Lead Industry of the United States.

For some time the lead industry of the United States has had visions of the exhaustion of its greatest ore deposits and many of these mines have already exhausted their supply of 4, 6, and 8 cent lead, but could produce a large tonnage of 10, 12, and 14 cent and a greater amount of 20 and 30 cent lead. Although prices were lower than in 1925, the mine production for 1926 was 692,000 tons, which was only slightly less than the record production of the previous year. The largest output came from southeastern Missouri and amounted to about 200,000 tons as compared with 209,000 tons for 1925; the output of Utah came next with a production of 146,000 tons as compared with 153,000 tons for 1925; Idaho ranked third with an output of 133,000 tons as compared with 126,500 tons for 1925.

The output of primary domestic desilverized lead was about 366,413 tons, of soft lead about 258,565 tons, and of desilverized soft lead about 55,707 tons, making a total output from domestic ores of about 680,685 tons of refined lead. The total production was 3.8 per cent larger than in 1925, although there was a decrease in the output of soft lead. The output of lead smelted and refined from foreign ore and bullion was 118,256 tons, as compared with 112,048 tons in 1925. The total lead smelted or refined in the United States in 1926 was thus 798,941 tons, a gain of about 4 per cent. The output of antimonial lead in 1926 was 22,524 tons, slightly more than in 1925.

Table 38.—Production of Refined Lead from Domestic Ore

[Quantities in short tons; values in thousands of dollars]

Yearly average or year	Quantity	Value [1]	Year	Quantity	Value [1]
1871–1875	39, 490	------------	1914	412, 794	32, 198
1876–1880	83, 803	------------	1915	507, 026	47, 660
1881–1885	129, 412	------------	1916	552, 228	76, 207
1886–1890	141, 541	------------	1917	548, 450	94, 333
1891–1895	163, 061	------------	1918	539, 905	76, 667
1896–1900	208, 698	15, 861	1919	424, 433	44, 990
1901–1905	282, 325	24, 280	1920	476, 849	76, 296
1906–1910	345, 698	33, 187	1921	398, 222	35, 840
1911–1915	443, 242	39, 005	1922	468, 746	51, 562
1916–1920	508, 373	75, 239	1923	543, 841	76, 138
1921–1925	526, 427	72, 647	1924	566, 407	90, 625
1910	375, 402	33, 035	1925	654, 921	113, 956
1911	391, 995	34, 496	1926 [2]	680, 685	108, 910
1912	392, 517	35, 327	Per cent change from 1925	+3. 8	−4. 4
1913	411, 878	36, 245			

[1] The values for years prior to 1917 and for 1926 are based on the average price at New York; from 1917 to 1925 the value is based on the total sales of each producing company.

[2] Preliminary.

Source: Bureau of Mines, Department of Commerce.

Census Statistics.

The Census of Manufactures for 1925 shows that, as compared with 1923, there was a decrease in the number of establishments and wage earners, but an increase of almost 25 per cent in the value of products. Cost of materials represented about the same percentage of value of products as at previous censuses, approximately 90 per cent. Average wages increased somewhat during the two-year interval and the primary horsepower employed in the industry was 11 per cent more than in 1923.

Table 39.—Lead Smelting and Refining Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	39	8, 319	16, 342	$5, 088, 684	$144, 195, 163	$175, 466, 304	$31, 271, 141
1909	28	7, 424	26, 954	5, 430, 652	151, 963, 022	167, 405, 650	15, 442, 628
1914	22	7, 385	29, 734	6, 134, 274	154, 014, 765	171, 578, 587	17, 563, 822
1919	25	6. 438	49, 668	9, 179, 615	179, 373, 646	196, 794, 519	17, 420, 873
1921	23	4, 509	(1)	5, 957, 961	134, 061, 121	150, 593, 779	16, 532, 658
1923	20	6, 194	42, 377	8. 767, 924	207, 314, 578	227, 735, 149	20, 420, 571
1925	17	6, 115	47, 219	9, 001, 580	254, 881, 029	283, 042, 542	28, 161, 513

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Price Movement and Market Conditions.

The lead industry for the year 1926 was in an extremely healthy condition. World production of lead, having been stimulated by the favorable prices in 1925, surpassed all previous years. Lead was formerly used chiefly in paints and similar products from which there is little or no recovery. This industry lost first place in 1926 to the storage-battery industry. There is an exceedingly high recovery from storage batteries. More efficient methods of recovering secondary metal were developed, making a much larger tonnage available from that source. This item of secondary lead can be looked forward to as a very great factor in the future, and such industries as storage battery and cable at the present rate of consumption will be within themselves a colossal storage of lead which could be made available for other uses should conditions require it.

The price at Joplin of 80 per cent lead concentrates was $115 a ton at the beginning of the year. In three weeks it rose to $122.50, which was the highest price paid during the year. The trend of prices was downward during the next four months and concentrates sold for $90 late in May and during the first week in June. A recovery then began which brought the price to $112.50 at the end of July, where it remained for two months. Lower prices prevailed during the remainder of the year and at its close the price was $97.50.

The average price in New York for prompt delivery for the year was 8.4 cents a pound, as compared with an average selling price of 9 cents in 1925. The quotation at the beginning of the year was 9.3 cents and in the closing days of the year it was 8.1 cents. Table 40 shows the average monthly prices of lead for prompt delivery at New York.

Table 40.—Prices of Lead at New York

[Cents per pound]

Yearly average	Price	Year	Price	Month	1925	1926	Month	1925	1926
1896–1900	3.8	1921	4.5	January	10.2	9.3	July	8.2	8.5
1901–1905	4.3	1922	5.7	February	9.4	9.2	August	9.2	8.9
1906–1910	4.8	1923	7.3	March	8.9	8.4	September	9.5	8.8
1911–1915	4.4	1924	8.1	April	8.0	8.0	October	9.5	8.4
1916–1920	7.4	1925	9.0	May	8.0	7.8	November	9.7	8.0
1921–1925	6.9	1926	8.4	June	8.3	8.0	December	9.3	7.9

Source: Engineering and Mining Journal-Press.

Foreign Trade.

The imports of refined pig lead amounted to 10,017 short tons in 1926, of which about 96 per cent came from Mexico. The base bullion imported during the same period contained 78,285 tons of lead, which came almost wholly from Mexico. The exports of lead of foreign origin amounted to 67,609 tons, as compared with 98,564 tons exported in 1925. Exports of lead of domestic origin amounted to 4,276 tons, as compared with 4,955 tons exported in 1925. Exclusive of stocks of lead at smelters and refineries and of the amount of lead exported with benefit of drawback, for which figures are not available, it is calculated that the amount of lead available for consumption in 1926 was about 736,000 tons, which was 12 per cent more than in 1925.

Table 41.—Lead Exports and Imports

NOTE.—Before 1922 exports and before 1923 imports of "other lead manufactures" were not shown by weight, their value is included in the totals.

Item	Quantity (short tons of 2,000 pounds)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
EXPORTS								
Domestic:								
In pigs, bars, etc. (total)	48, 208	77, 766	102, 853	71, 240	5, 159	9, 867	15. 599	9, 412
From domestic ore	1, 999	5, 332	4, 955	4, 276	260	711	784	601
From foreign ore	46, 209	72, 434	97, 897	66, 964	4, 899	9, 686	14, 814	8, 811
Other lead manufactures	4, 216	8, 003	7, 534	12, 742	1, 079	1, 966	2, 006	3, 297
oreign in pigs, bars, and old	2, 526	4, 324	667	695	296	530	97	93
IMPORTS								
Ore and matte (lead content)	33, 441	47, 660	44, 481	58, 116	3, 169	4, 435	5, 163	6, 801
Bullion and base bullion (lead content)	80, 748	77. 751	70, 627	78, 285	8, 532	8, 862	10, 458	10, 096
Pigs, bars, and other forms and old	21, 099	12, 247	6, 399	11, 243	2, 384	1, 721	1, 166	1, 488
Type metal (lead content)	3, 677	645	2, 155	3, 496	432	101	463	896
Other manufactures of lead	200	224	214	--------	95	143	149	164

Source: Bureau of Foreign and Domestic Commerce.

ZINC

SUMMARY.—The production of primary zinc in the United States from domestic ores during 1926 amounted to 611,991 short tons, an increase of 10 per cent over 1925. Apparent consumption surpassed the record year of 1925 by 11 per cent, largely because the products of the galvanizing and brass industries have been in heavy demand by the building and automobile trades. Electrolytic zinc was in great demand owing to the general requirement of a pure grade of metal by alloy and brass makers. Stocks at the end of the year were 27,000 short tons as compared with 13,000 tons a year earlier. Exports of zinc dropped 40 per cent, owing largely to the serious labor troubles in Great Britain, while imports of ore were 8 per cent greater than in 1925. During 1926 no new zinc deposits were exploited, and there were no new mining and concentrating methods developed. The price of zinc at St. Louis averaged 7.3 cents per pound for the year 1926. The average monthly price was highest in January, and lowest in May.

Table 42.—Primary Zinc Production, Imports, Exports, Stocks, and Apparent Consumption

[Short tons of 2,000 pounds]

Year	Production of primary zinc			Imports of blocks, pigs, sheets, etc.	Exports, domestic [1]	Stocks, end of year	Apparent consumption [2]
	Total	From domestic ore	From foreign ore				
1913	346, 676	337, 252	9, 424	6, 100	13, 810	40, 659	295, 370
1919	465, 743	452, 272	13, 471	70	141, 764	36, 793	323, 964
1920	463, 377	450, 045	13, 332	[3] 8, 177	114, 030	71, 037	323, 043
1921	200, 500	198, 232	2, 268	[3] 7, 470	4, 825	70, 452	203, 600
1922	354, 277	353, 274	1, 003	52	33, 503	16, 890	373, 090
1923	510, 434	508, 335	2, 099	21	52, 943	27, 888	446, 514
1924	517, 339	515, 831	1, 508	25	76, 241	20, 754	448, 257
1925	572, 946	555, 631	17, 315	24	80, 547	13, 080	500, 097
1926	618, 422	611, 991	6, 431	22	47, 562	26, 937	557, 025

[1] Includes that made from foreign ore; covers zinc in slabs, blocks, pigs, etc., and sheets.
[2] Takes into account changes of stocks and also zinc exported in manufactures with benefit of drawback.
[3] Includes imports, domestic, returned.

Source: Bureau of Mines, Department of Commerce.

The Zinc Industry of the United States.

Backed by favorable general conditions and a steady consumption the zinc industry for 1926 surpassed that of 1925. The recoverable zinc contained in ore mined in the United States amounted in 1926 to about 773,000 tons, as compared with 710,847 tons in 1925, a gain of 9 per cent. The output of the Eastern States was about 103,000 tons (78 per cent from New Jersey), of the Central States about 465,000 tons, and of the Western States about 205,000 tons. All important zinc-producing States in the west reported increased output as compared with 1925. The greatest gain was made in Utah and amounted to 75 per cent. Idaho's gain was 68 per cent, and the Joplin district made a 4 per cent increase over its large output of 1925.

The output of primary metallic zinc from domestic ores in 1926 was about 611,991 tons and that from foreign ores was 6,431 tons, a total of 618,422 tons, which was 8 per cent more than in 1925. In addition to the output of primary zinc there was an output of 40,799 tons of redistilled secondary zinc, as compared with 39,181 tons in 1925, making a total supply of distilled and electrolytic zinc in 1926 of 659,221 tons.

Table 43.—Smelter Production of Primary Zinc from Domestic Ore

[Short tons of 2,000 pounds]

Year or yearly average	Production	Yearly average or year	Production	Year	Production	Year	Production
1875	15,833	1911–1915	346,867	1915	458,135	1923	508,335
1880	23,239	1916–1920	508,731	1916	564,338	1924	515,831
1882–1885	37,467	1921–1925	426,261	1917	584,597	1925	555,631
1886–1890	54,285	1910	252,479	1918	492,405	1926	611,991
1891–1895	82,396	1911	271,621	1919	452,272	Per cent change from 1925	+10.0
1896–1900	109,963	1912	323,907	1920	450,045		
1901–1905	169,504	1913	337,252	1921	198,232		
1906–1910	219,378	1914	343,418	1922	353,274		

Source: Bureau of Mines, Department of Commerce.

During the latter part of 1926 stocks accumulated slightly until they reached approximately 27,000 tons, as compared with 13,000 tons at the end of 1925. This is not considered excessive, as at the end of a number of years since 1913 larger stocks had accumulated. No slab zinc was reported in warehouses.

The United States produces almost 50 per cent of the world's zinc supply and is also the largest consumer, owing to the great demand of the galvanizing industry. The apparent domestic consumption of primary zinc in 1926 was about 557,000 tons, as compared with 500,097 tons in 1925.

Normally Great Britain is next to the United States as a zinc-consuming country, but in 1926 her galvanizing industry was partially paralyzed by the coal strike. The shortage of fuel in Great Britain closed not only the galvanizing industry but also the zinc-smelting industry, thus turning the stream of foreign zinc concentrates intended for British smelters to the Continent, where smelters operated uninterruptedly at full capacity. A supply of slab zinc was produced which could not be absorbed by a limited market, and served to increase the world's surplus stock. This shifting in European conditions resulted in the curtailment of exports of American concentrates to those markets.

No special improvements in mining or concentrating were effected in 1926. In Great Britain and also on the Continent extensive research was carried on to obtain improved metallurgical processes. Results from such activities, however, can not be expected to materialize for several years.

Census Statistics.

From the data of the Census of Manufacturers for 1925, it appears that there was a slight decline in the number of establishments engaged in the zinc smelting and refining industry as compared with 1923. Value of products, however, increased 26 per cent. The ratio of cost of materials to value of products was higher in 1925 than at any other census since 1914. Average wages showed a slight increase and primary horsepower employed in the industry was 24 per cent larger than in 1923.

Table 44.—Zinc Smelting and Refining Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	31	4,869	11,145	$2,355,921	$13,286,058	$18,188,498	$4,902,440
1909	29	6,655	21,457	4,210,341	25,230,001	34,205,894	8,975,893
1914	29	9,617	36,705	6,699,620	39,572,587	53,538,398	13,965,811
1919	39	13,796	73,604	17,783,278	70,014,728	104,122,938	34,108,210
1921	29	5,778	(1)	7,243,760	24,312,208	37,482,675	13,170,467
1923	35	11,918	69,583	16,895,864	64,134,114	94,183,900	30,049,786
1925	28	11,289	86,368	16,304,701	83,992,110	118,905,590	34,913,480

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Prices.

The price at Joplin of 60 per cent zinc concentrates was $56 a ton at the beginning of the year. By May 1 it had fallen to $45. It rose gradually to $50 in July and remained at or slightly below that figure during the rest of the year, the price throughout December being $46.

The average quoted price of 7.3 cents a pound for prime western zinc at St. Louis in 1926 compared with an average selling price for all grades in 1925 of 7.6 cents. The average of the quotations for

January was 9.1 cents a pound and for December 7.7 cents. Table 45 shows the average annual and monthly prices of zinc at St. Louis.

Table 45.—Prices of Zinc at St. Louis

[Cents per pound]

Yearly average	Price	Year	Price	Month	1925	1926	Month	1925	1926
1896–1900	[1]4.4	1921	4.7	January	7.7	8.3	July	7.2	7.4
1901–1905	[1]4.9	1922	5.7	February	7.5	7.8	August	7.6	7.4
1906–1910	5.4	1923	6.6	March	7.3	7.3	September	7.8	7.4
1911–1915	7.2	1924	6.3	April	7.0	7.0	October	8.3	7.3
1916–1920	8.8	1925	7.6	May	7.0	6.8	November	8.6	7.2
1921–1925	6.2	1926	7.3	June	7.0	7.1	December	8.6	7.0

[1] From American Bureau of Metal Statistics.

Source: Engineering and Mining Journal-Press.

Foreign Trade.

The imports of zinc in ore in 1926 amounted to 14,626 short tons. The zinc content of concentrates exported amounted to 105,563 tons. The zinc content of ore in bonded warehouses on October 31 was 14,410 tons. Imports of slab zinc were negligible. (Table 42.)

The exports of slab zinc made from domestic and foreign ores amounted to 46,803 tons, including 4,641 tons of rolled zinc. Although in 1925 Europe absorbed more than nine-tenths of our total domestic exports of slab zinc, in 1926 less than two-thirds went to that continent. The United Kingdom took 15,912 short tons, or 38 per cent of our domestic exports of slab zinc, whereas in 1925 she had taken almost 47 per cent of the total. France and Germany also took considerably smaller percentages than the year before, and Italy, which had taken almost 12 per cent of the total in 1925, took less than 5 per cent in 1926.

Table 46.—Exports and Imports of Zinc

Note.—Before 1922 exports of "other zinc manufactures" were reported by value only and total quantity to that extent is not strictly comparable. Exports of ore, concentrates, and dross are in terms of gross weight and not of zinc content.

Item	Quantity (short tons of 2,000 pounds)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Domestic exports:								
Zinc and manufactures (total)	57,228	79.004	83,520	50,012	8,338	10,839	13,181	7,993
Slabs, blocks, or pigs	49,205	72,583	76,351	42,162	6,902	9,538	11,654	6,256
Zinc rolled in sheets, etc	3,732	3,658	4,196	4,641	764	785	927	1,087
Other zinc manufactures	4,291	2,763	2,973	3,209	672	516	600	650
Ore and dross	14,745	10,845	84,978	105,563	1.222	974	4,845	5,143
Imports of ore (zinc content)	3,426	4,746	13,537	14,626	364	427	1,438	1,520

Source: Bureau of Foreign and Domestic Commerce.

ALUMINUM

Sources, Production, and Trend of the Industry.

Bauxite, the ore of aluminum, occurs in the United States in four States—Arkansas, Georgia, Alabama, Mississippi, and Tennessee. Bauxite is used not only for the manufacture of aluminum metal but also for aluminum salts, abrasives, and refractories. In 1924 a new fast-setting cement (ciment fondu), in which bauxite is used, came commercial popularity and by 1926 a large tonnage of bauxite, into mostly foreign, was used by the cement industry.

The United States leads the world in the production of bauxite, and is also the leading country in the manufacture of aluminum and aluminum goods. The production of bauxite in 1926 was 392,250 long tons, an increase of 24 per cent over 1925, while imports decreased 20 per cent as compared with the previous year. There was an increase in the production of all domestic fields. No bauxite was produced from Alabama or the newer Mississippi regions, but preparations for production were made in the Eufaula district.

The Aluminum Co. of America expanded its manufacturing facilities in Canada and began production at its new plant on the Saguenay River.

Table 47.—Bauxite and Aluminum Production, Exports, Imports, and Apparent Consumption

Item	1913	1920	1921	1922	1923	1924	1925	1926
BAUXITE	*Long tons*	*Long tons*	*Long tons*	*Long tons*	*Long tons*	*Long tons*	*Long tons*	*Long tons*
Domestic production	210, 241	521, 308	139, 550	309, 600	522, 690	347, 570	316, 540	392, 250
Imports for consumption	21, 456	42, 895	27, 587	23, 656	119, 020	201, 974	353, 696	281, 644
Exports, domestic	(1)	22, 257	5, 942	19, 617	78, 560	77, 065	78, 633	87, 770
ALUMINUM (VALUE)	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Domestic production:								
Primary	9, 450	41, 375	10, 906	13, 622	28, 305	37, 607	36, 430	37, 583
Secondary	2, 199	9, 489	3, 775	6, 086	10, 825	14, 596	24, 816	(2)
Total	11, 649	50, 864	14, 681	19, 708	39, 130	52, 203	61, 246	(2)
Imports for consumption	4, 784	13, 077	8, 890	9, 695	8, 743	7, 145	10, 107	16, 779
Exports, domestic	966	5, 631	3, 109	2, 836	3, 572	4, 172	6, 057	4, 452
Apparent domestic consumption	15, 468	58, 310	20, 462	26, 567	44, 301	55, 176	65, 296	(2)

[1] Not reported separately. [2] Not available.

Source: Bureau of Mines, Department of Commerce.

An important event in the aluminum industry was the formation late in 1926 of a European Aluminum Cartel, composed of all the principal producers of Europe, including the French, English, German, and Swiss makers of aluminum. While the Italian firms are not nominally in the cartel, their movements will probably be more or less in accord with it, for they are largely controlled by companies in the agreement. It is estimated that through the present agreement the cartel controls, for a period of two years, about 47 per cent of the total world-producing capacity. The prime object is said to be to develop markets and to attempt to lower prices so that consumption will increase.

The value of new aluminum produced in the United States in 1926 was $37,583,000, which was 3 per cent larger than in the preceding year. Consumption of aluminum in the manufacture of automobiles increased with the increase in output of that industry. Aluminum is also being used to a greater extent in certain paints and continues to be used in increasing amounts for high-tension electric transmission lines. Railroads continued to use more aluminum to effect reduction in weight of equipment, the United States Navy used more lightweight metal in construction, and manufacture of aluminum furniture was begun.

Chart VII.—PRICES OF ALUMINUM AND TIN AT NEW YORK

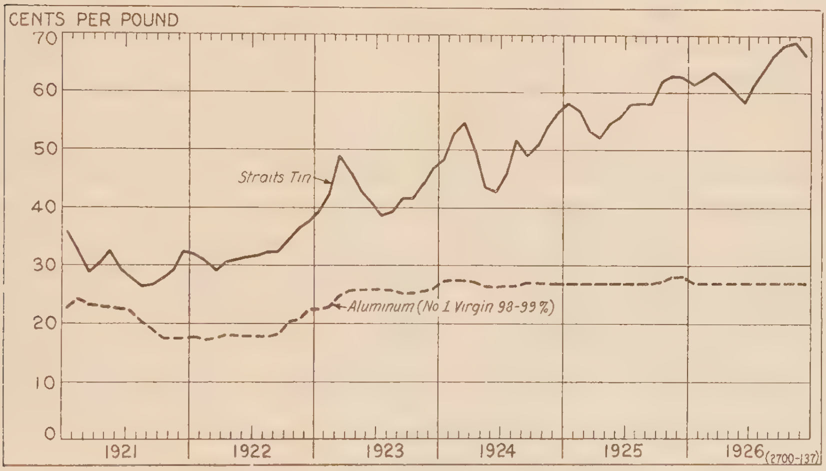


Table 48.—Prices of Aluminum at New York

[Cents per pound]

Yearly average	Price	Year	Price	Month	1925	1926	Month	1925	1926
1896–1900	37.2	1921	21.1	January	27.0	27.0	July	27.0	27.0
1901–1905	33.8	1922	18.7	February	27.0	27.0	August	27.0	27.0
1906–1910	30.7	1923	25.4	March	27.0	27.0	September	27.0	27.0
1911–1915	23.7	1924	27.0	April	27.0	27.0	October	27.2	27.0
1916–1920	[1] 44.6	1925	27.2	May	27.0	27.0	November	28.0	27.0
1921–1925	23.9	1926	27.0	June	27.0	27.0	December	28.0	26.9

[1] Average for 4 years.

Source: American Metal Market.

Prices.

The monthly average price of aluminum at New York was 27 cents throughout the greater part of 1926, the average for December being slightly less. Domestic bauxite was quoted at $5.50 to $8.75 a long ton until July when quotations were changed to read $8 a long ton for No. 1 chemical ore f. o. b. Georgia mines. French red bauxite was quoted at $6 to $7.50, Istrian at $5.50 to $7, and Dalmatian, low silica, at $5 to $6.50 a metric ton, c. i. f. eastern ports.

Foreign Trade.

The exports of bauxite concentrates (alumina) during 1926 were 87,770 long tons, most of which went to Canada and Norway. The United States exported 9,749,445 pounds of aluminum and aluminum manufactures valued at $4,452,303, a decrease of 26 per cent in value as compared with 1925.

Imports of bauxite during 1926 were 281,644 long tons, chiefly from Dalmatia and British and Dutch Guiana. Imports of crude aluminum, scrap, and alloys increased 64 per cent over 1925, amounting to 71,277,690 pounds, of which more than one-quarter came from Norway. The total value of the imports of aluminum and its products was $18,779,377 about four times the value of domestic exports.

TIN

Trade Developments.

During 1926 no tin was produced in the United States proper and only about seven tons in Alaska. The imports of tin ore or concentrates were 303 tons and the imports of tin in bars and pig were 172,836,000 pounds, both showing increases as compared with 1925. The value of the 1926 imports was $104,793,000, which was 10 per cent more than in 1925. The average price per long ton of tin in bars and pig in 1926 was $150 a ton more than that of 1925. The world's production in 1926 has been estimated at 143,522 long tons which was slightly less than in the preceding year. For the past few years the United States has acquired an ever-increasing percentage of the world's output. Production of crude tin finds its way to the market as bars and pig tin through only a few channels.

Table 49.—Imports of Tin and Tin Ore

Yearly average or year	Tin in bars, blocks, pigs, etc.		Tin ore		Year	Tin in bars, blocks, pigs, etc.		Tin ore	
	Quantity, 1,000 pounds	Value, 1,000 dollars	Quantity, long tons	Value, 1,000 dollars		Quantity, 1,000 pounds	Value, 1,000 dollars	Quantity, long tons	Value, 1,000 dollars
1881–1885 [1]	23,330	4,949	--------	--------	1914	95,050	32,861	13	3
1886–1890 [1]	31,633	7,095	--------	--------	1915	115,636	38,737	564	211
1891–1895 [1]	41,838	7,687	--------	--------	1916	138,073	51,803	7,179	4,032
1896–1900 [1]	60,371	10,604	--------	--------	1917	143,637	63,629	8,084	4,743
1901–1905 [1]	81,219	21,550	--------	--------	1918	142,507	93,144	16,423	11,444
1906–1910 [1]	91,678	30,244	--------	--------	1919	89,698	50,890	17,139	11,872
1911–1915 [1]	104,880	41,493	--------	--------	1920	126,038	73,787	30,489	18,795
1911–1915	107,582	42,472	[2] 158	[2] 60	1921	54,201	16,646	13,696	5,673
1916–1920	127,991	66,651	15,863	10,177	1922	134,833	40,798	12,325	5,504
1921–1925	132,173	56,522	5,812	2,703	1923	154,411	61,092	2,692	2,169
1910 [1]	101,135	30,870	--------	--------	1924	145,732	68,953	155	71
1911	106,937	43,391	--------	--------	1925	171,686	95,121	191	98
1912	116,003	50,371	31	15	1926	172,836	104,793	303	187
1913	104,282	46,900	24	11					

[1] Fiscal years ended June 30.

[2] Four-year average.

Source: Bureau of Foreign and Domestic Commerce.

Foreign Trade and Price Movement.

It is significant that the imports of tin into the continent of Europe have not increased materially since 1913. In that year 25,870 long tons were imported and in 1926, 26,261 tons. The United States on the other hand imported 77,159 long tons in 1926, which was 66 per cent more than in 1913. It appears as if high prices had curtailed consumption in Europe and that other materials must have been substituted for many of the purposes for which tin was formerly used.

The average December price at New York was 66.6 cents per pound as compared with 62.9 cents per pound in 1925. The high price maintained during 1926, in conjunction with a decided decrease in visible stocks stimulated throughout the year research work along the lines of substitution. The search for a satisfactory tinless container may be crowned with success at almost any time, thus indicating the possibility of the gradual release of a larger tonnage for other uses.

Table 50.—Prices of Tin at New York

[Cents per pound]

Yearly average	Price	Year	Price	Month	1925	1926	Month	1925	1926
1896–1900	19. 5	1921	28. 6	January	58. 3	61. 4	July	58. 0	61. 4
1901–1905	28. 1	1922	31. 8	February	57. 1	62. 7	August	58. 2	63. 9
1906–1910	34. 3	1823	41. 8	March	53. 7	63. 5	September	58. 2	66. 5
1911–1915	41. 1	1924	49. 7	April	52. 1	62. 0	October	62. 3	68. 2
1916–1920	[1] 54. 2	1925	56. 8	May	54. 6	60. 2	November	63. 3	68. 7
1921–1925	41. 7	1926	63. 6	June	56. 0	58. 4	December	62. 9	66. 6

[1] Average for 4 years.

Source: Engineering and Mining Journal-Press.

SIMPLIFICATION IN NONFERROUS METAL PRODUCTS

Three simplified practice recommendations in regard to nonferrous metal products have been developed under the auspices of the Division of Simplified Practice. These relate to brass lavatory and sink traps, eaves trough and conductor pipe, and sterling silver flatware. Four other items were in the active stage and prospects are good that simplified practice recommendations will be completed covering varieties, specifications, trade practices, etc., for platinum jewelry, sterling silver, gas cocks, and enameled ware. The national committee on metals utilization has been asked to cooperate in simplification of other items, ranging from automobile license plates to lead pipe and from copper and brass products to metal ceilings and oil cans.

MACHINERY

DEVELOPMENT OF THE INDUSTRY IN GENERAL

The machinery manufacturing industry of the United States does not lend itself to statistical presentation, because the products represent an endless variety of classes and types of equipment which are used for very different purposes. Few of these classes can be satisfactorily defined. In addition to industrial, agricultural, and electrical machinery, each of which is a large industry or group of industries, there are also many miscellaneous types of machinery used in offices and homes. Tables 1, 2, and 3 show the development of the entire machinery industry and are intended to give an idea of the relative importance of the major branches of the industry. Particular attention is given in these tables to office machinery, an industry which has been developing rapidly in recent years. Industrial, agricultural, and electrical machinery are treated in more detail in the latter part of this section.

Census Returns—Machinery Industry.

The development of the entire machinery industry from 1914 to 1925 is shown in Table 1. The industry showed a very rapid expansion during the war period and the census of 1919 indicated that the number of workers had increased by more than half since 1914, while both the total value of the product and the value added by manufacture were more than three times as great as before the war. After the marked depression in 1921 the machinery industries again expanded their operations, with the result that the total value of products in 1925 exceeded $5,000,000,000 and was 5.3 per cent larger than in 1919. Between 1923 and 1925 the average number of wage earners was reduced by 5.4 per cent, while the total horsepower of prime movers installed showed an increase of 18 per cent. The increase in the total value of output of 6.2 per cent in this two-year period and a gain of 7 per cent in value added by manufacture indicate that the increased use of power has resulted in a considerable expansion of the output per wage earner.

In 1925 foundries and machine shops were much the most important single branch of the machinery industry, producing about 45 per cent of the total value of output. The electrical-machinery group ranked next in importance with about 31 per cent of the total output, while engines and water wheels, machine tools, and agricultural implements followed in the order named. Office machinery, which consists primarily of typewriters, cash registers, and adding and calculating machines, had a total value of production in 1925 which was only slightly smaller than that of agricultural implements, while the value added to products by manufacture was substantially larger. The office-equipment industries, on the other hand, use much less horsepower in factories than any of the other major groups of machinery.

Table 1.—The Machinery Industries

Year and industry	Establishments	Wage earners (average number)	Primary horsepower	In thousands of dollars			
				Wages	Cost of materials	Value of product	Value added by manufacture
1914	13, 457	618, 737	1, 256, 908	412, 406	662, 967	1, 582, 409	919, 442
1919	14, 821	998, 484	2, 060, 325	1, 240, 487	1, 973, 455	4, 768, 671	2, 795, 216
1921	12, 395	662, 277	(1)	832, 781	1, 361, 163	3, 235, 075	1, 873, 912
1923	12, 147	907, 707	2, 300, 443	1, 253, 743	1, 891, 524	4, 727, 818	2, 836, 294
1925	11, 808	858, 843	2, 714, 377	1, 225, 359	1, 985, 367	5, 020, 281	3, 034, 914
MAJOR INDUSTRIES, 1925							
Agricultural implements	303	28, 696	115, 325	37, 388	73, 850	169, 468	95, 618
Cash registers and calculating machines	40	13, 264	17, 586	21, 114	11, 120	98, 188	87, 068
Electrical machinery	1, 739	239, 921	589, 398	323, 835	636, 692	1, 540, 002	903, 310
Engines and water wheels	220	51, 099	224, 194	73, 585	145, 784	313, 588	167, 804
Foundry and machine shops	8, 154	397, 838	1, 424, 259	590, 801	883, 708	2, 232, 986	1, 349, 278
Machine tools	378	36, 825	147, 418	55, 932	54, 524	175, 592	121, 068
Pumps (hand and power) and equipment	253	17, 935	56, 470	25, 278	50, 328	120, 148	69, 820
Sewing machines, cases, etc	41	12, 121	27, 439	16, 100	18, 610	46, 298	27, 689
Textile machinery and parts	380	27, 869	61, 738	37, 464	39, 037	121, 653	82, 616
Typewriters and supplies	70	14, 969	15, 468	18, 804	15, 157	63, 080	47, 023

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

The value of principal classes of machinery other than vehicles is shown in Table 2 for each census year since 1914. The value of output for all the important groups of machinery industries was very much greater in 1925 than before the war, but there has been a great difference in development of the various industries since 1919; the electrical-machinery and miscellaneous-machinery industries have shown increases of 56 per cent and 4 per cent, respectively, while the value of output of the industrial-machinery group declined 6 per cent, and that of the agricultural-machinery industry was 44 per cent smaller in 1925 than in 1919. Comparisons with 1923 show a growth in the value of output for each of these machinery groups except industrial machinery, which was practically unchanged.

The office-machinery group as a whole showed an appreciable increase in production from 1923 to 1925. The value of output of typewriters and parts was 27 per cent larger in 1925 than in 1923 and was also substantially greater than in any earlier census year. The total value of adding and calculating machines and of cash registers and parts produced, on the other hand, showed a slight decline from that in 1923, but this may be entirely attributed to the lower prices of these products. The difference in value of output of office machinery shown in Table 1 from that shown in Table 2 is because the figures in the former table include for each of the industries the production of other commodities as well as the specified office machines, although they do not include office machines made as a side line by other industries.

Other important commodities in the miscellaneous-machinery group are sewing machines and motion-picture cameras. The value of output of sewing machines and parts in 1925 was 5 per cent larger than in 1923, and was also greater than in any other census year except 1919. The production of motion-picture cameras and projectors measured in dollars declined from 1919 to 1923 but has since shown a very great expansion. The 1925 output was valued at $4,620,000, an increase of 76 per cent as compared with 1923.

Table 2.—Value of Principal Classes of Machinery (Other Than Vehicles) Manufactured in the United States

Note.—Data as to the more specific classes of industrial, electrical, and agricultural machinery are presented in Tables 5, 19, and 23.

[In thousands of dollars]

Group and commodity	1914	1919	1921	1923	1925
The machinery group	**1, 582, 409**	**4, 768, 671**	**3, 235, 075**	**4, 727, 818**	**5, 020, 281**
Industrial machinery	978, 064	3, 200, 184	2, 053, 609	3, 009, 118	2, 998, 259
Electrical machinery	350, 638	1, 028, 503	866, 533	1, 349, 183	1, 608, 843
Agricultural machinery	164, 087	304, 961	163, 817	151, 286	169, 468
Miscellaneous machinery	89, 620	235, 023	151, 116	218, 231	243, 711
Adding and calculating machines [1]	14, 734	53, 993	30, 016	51, 996	51, 289
Cash registers and parts [1]	15, 935	31, 574	23, 944	44, 382	42, 326
Motion-picture cameras and projectors [1]	(2)	3, 606	2, 869	2, 631	4, 620
Sewing machines and parts [1]	27, 238	57, 938	35, 608	42, 933	45, 131
Typewriters and parts [1]	20, 517	43, 313	33, 361	39, 521	50, 190

[1] Includes products made by establishments in other industries.

[2] Not reported separately.

Source: Bureau of the Census.

Machinery Exports.

Machinery as a whole was the third most important commodity in our export trade during 1926, constituting 8.5 per cent of the total value of exports. Machinery exports reached an aggregate value of $400,000,000, which was 8.7 per cent more than in 1925, and was also larger than in any other year since 1921. Each of the principal groups of machinery industries has shown a steady expansion in the value of its export trade since 1922. Exports of agricultural machinery more than trebled during this period, exports of office machinery doubled, and there was also a substantial growth in exports of electrical machinery.

Exports of office machinery from the United States reached a total value of $36,311,000 in 1926, which was 7.2 per cent more than in 1925. The increase during the past year was particularly pronounced in the case of miscellaneous office appliances, and exports of accounting and calculating machines were also larger. Exports of typewriters were slightly smaller than in 1925, and there was a pronounced decrease in foreign purchases of addressing and tabulating machines. The importance of the export trade in office appliances is much greater than its total value indicates, as the sales of this type of equipment in foreign countries usually pave the way for the sale of other American merchandise.

Sewing machines continue to be an important item in our export trade, being valued in 1926 at $8,683,000. Export trade in motion-picture machines and projection apparatus is also rapidly increasing in importance and reached a value of $815,000 in 1926.

Table 3.—Exports of Machinery, Other Than Vehicles

NOTE.—Data as to the more specific classes of industrial, electrical, and agricultural machinery are presented in Tables 10, 20, and 25.

[Value in thousands of dollars]

Group and commodity	1921	1922	1923	1924	1925	1926
Total machinery exports	**408, 207**	**234, 593**	**282, 369**	**311, 623**	**368, 026**	**400, 036**
Industrial machinery	243, 672	129, 910	141, 651	145, 435	172, 912	179, 556
Electrical machinery, apparatus, and supplies	88, 931	53, 147	59, 927	69, 828	73, 790	84, 226
Agricultural machinery	46, 127	26, 167	50, 570	59, 824	77, 565	85, 667
Office machinery and appliances	17, 934	17, 386	21, 728	26, 425	33, 859	36, 311
Accounting and calculating machines	2, 653	2, 048	3, 365	5, 965	8, 226	8, 700
Addressing and duplicating machines	---------	221	422	518	641	431
Typewriters and parts	12, 431	11, 972	14, 362	15, 878	19, 652	19, 090
Other office appliances	2, 849	3, 144	3, 579	4, 064	5, 340	8, 088
Printing machinery	11, 543	7, 983	8, 493	10, 111	9, 900	14, 276
Typesetting machines	3, 511	3, 828	3, 890	3, 530	3, 447	3, 741
Printing presses	8, 031	4, 155	4, 603	4, 825	4, 798	6, 232
Other printing machinery and accessories	---------	---------	---------	1, 755	1, 655	4, 302

Source: Bureau of Foreign and Domestic Commerce.

INDUSTRIAL MACHINERY

GENERAL POSITION—PRODUCTION

Extent of Industrial Machinery Industry.

The industrial machinery manufacturing industry of the United States includes nearly 10,000 factories usually employing more than 500,000 workmen, and it is probably true that no two of these shops produce just the same sort of equipment. It is impossible to subdivide the industry into types because few, if any, of these classes can be satisfactorily defined.

The magnitude of the industrial machinery industry and the changes therein since 1914 are set forth in Table 4, which includes the following branches as classified by the Census Bureau: Foundry and machine-shop products, gas machines and gas and water meters, machine tools, pumps (both power and other), textile machinery, and engines and water wheels. Each establishment is classified according to its principal product; some of those included make other products as well as machinery, and some machinery is made by establishments not included in this tabulation.

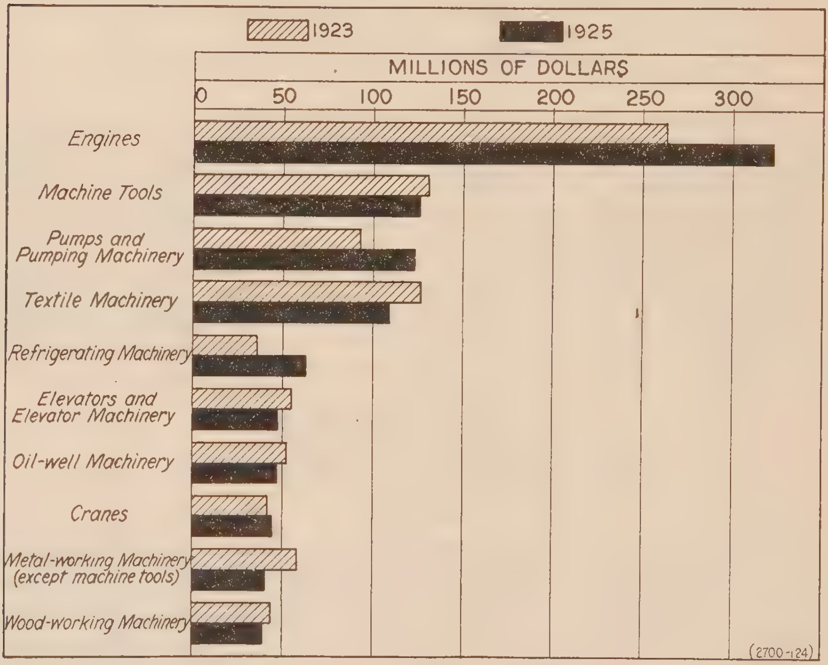
Table 4.—The Industrial Machinery Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
1914	11,392	405,422	848,749	274,432	405,159	978,064	572,905
1919	12,483	666,979	1,413,335	856,442	1,317,008	3,200,184	1,883,176
1921	10,364	425,728	(1)	547,628	869,748	2,053,609	1,183,860
1923	9,848	586,994	1,610,604	834,416	1,200,253	3,009,118	1,808,865
1925	9,445	537,080	1,921,454	790,489	1,186,419	2,998,259	1,811,840

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Chart I.—VALUE OF PRINCIPAL CLASSES OF INDUSTRIAL MACHINERY MANUFACTURED



It is interesting to note that the number of horsepower available per workman increased from 2.1 in 1914 to nearly 3.6 in 1925. Similarly the value added by manufacture per workman, which in 1914 was $1,410, by 1925 had increased to $3,370, a striking testimonial to the advance in manufacturing efficiency shown by the industry. It is also significant that the ratio of the value added by manufacture to the cost of materials increased slightly between 1914 and 1925.

Chart I and Table 5 show the types of machinery represented in the above totals. It will be noted that in almost every instance the 1925 volume and the 1923 volume were well above the 1921 and the 1914 production, but between the years 1923 and 1925 the trend has been uncertain in particular branches although the total for the industry indicates marked progress. Allowance should, of course, be made for the general change in price levels between 1914 and 1925.

Table 5.—Value of Principal Classes of Machinery Manufactured, Other Than Electrical and Agricultural

[In thousands of dollars]

Class	1914	1919	1921	1923	1925
Engines [1]	97, 835	501, 674	186, 488	266, 285	322, 944
Machine tools, including parts and attachments	(2)	179, 747	61, 935	132, 423	126, 243
Pumps and pumping machinery	27, 457	66, 456	69, 255	92, 815	122, 781
Textile machinery and parts	(2)	118, 044	115, 167	127, 406	109, 354
Refrigerating machinery	10, 522	30, 667	33, 174	36, 542	62, 593
Elevators and elevator machinery	17, 288	70, 187	40, 931	55, 498	47, 430
Oil-well machinery	10, 569	28, 351	27, 415	52, 158	47, 299
Cranes	4, 194	52, 534	20, 445	42, 197	43, 936
Metal-working machinery, other than machine tools	17, 420	57, 541	19, 288	58, 297	41, 563
Wood-working machinery	13, 393	36, 763	25, 682	44, 447	39, 620
Mining machinery, exclusive of oil-well machinery	13, 254	51, 243	30, 290	47, 590	34, 827
Air compressors	5, 158	18, 650	15, 729	27, 762	29, 473
Power shovels	(2)	12, 454	12, 858	23, 684	26, 609
Road-making machines	3, 545	15, 778	17, 858	24, 264	26, 297
Meters, gas and water	11, 638	(3)	18, 181	21, 716	25, 182
Laundry machines	7, 565	13, 891	12, 983	19, 077	24, 198
Paper mill and pulp mill machinery	8, 588	27, 421	31, 581	18, 736	21, 209
Dredging and excavating machinery	2, 969	9, 108	4, 991	16, 622	19, 232
Bakers' machinery	2, 555	9, 359	10, 560	14, 451	17, 212
Blowers and fans	(2)	12, 141	12, 518	14, 386	16, 210

[1] Steam or internal-combustion engines, water wheels, and parts, not including steam boilers, made for sale as separate units.

[2] Not reported separately.

[3] No comparable data.

Source: Bureau of the Census.

Employment.

Table 4 indicates the broad trends in employment for the different census years, while Table 6 shows monthly changes in employment for the foundry and machine-shop industry since 1920 as reported by the National Industrial Conference Board. It will be noted that up to October, 1926, there was an almost consistent increase in the volume of employment since August, 1924, but conditions became more unsatisfactory during the latter part of 1926.

Table 6.—Index Numbers of Employment in Foundry and Machine-Shop Products Industry

Period of one week in—	1920	1921	1922	1923	1924	1925	1926
January	--------	76. 4	54. 2	87. 8	81. 4	75. 2	77. 1
February	--------	72. 9	56. 5	88. 4	82. 2	74. 9	81. 6
March	--------	67. 5	59. 1	91. 4	82. 1	75. 6	83. 5
April	--------	61. 0	62. 3	91. 7	81. 3	75. 2	84. 0
May	--------	57. 2	65. 7	92. 4	80. 0	74. 1	83. 5
June	100. 0	55. 2	68. 8	92. 7	76. 4	73. 6	83. 3
July	100. 6	51. 2	72. 1	91. 9	73. 3	74. 1	82. 0
August	100. 7	49. 7	73. 6	91. 2	70. 5	72. 9	80. 6
September	100. 7	49. 7	75. 8	90. 5	70. 9	73. 6	80. 9
October	98. 3	51. 0	79. 4	90. 6	73. 3	74. 0	72. 7
November	93. 2	53. 5	82. 5	86. 4	72. 6	74. 9	78. 7
December	86. 2	55. 1	85. 3	85. 0	73. 4	76. 1	77. 5

Source: National Industrial Conference Board (Inc.).

Foundry Equipment—Machine Tools.

The sales of equipment used in the manufacture of machinery probably indicate in a general way the expansion of the industry as a whole, being a measure of the demand for increased capacity in that industry and indirectly suggesting the rate at which the industry is expanding. Table 7, based upon reports by 11 members of the Foundry Equipment Manufacturers' Association in 1922, 1923, and 1924, and 13 members in 1925 and 1926, shows that sales of such equipment in 1926 were higher than in 1925 and were above the level of the three preceding years, suggesting a marked effort on the part of our machinery manufacturers to increase the efficiency of their operations.

Chart II.—NEW ORDERS FOR MACHINE TOOLS: BETWEEN 50 AND 60 REPORTING FIRMS

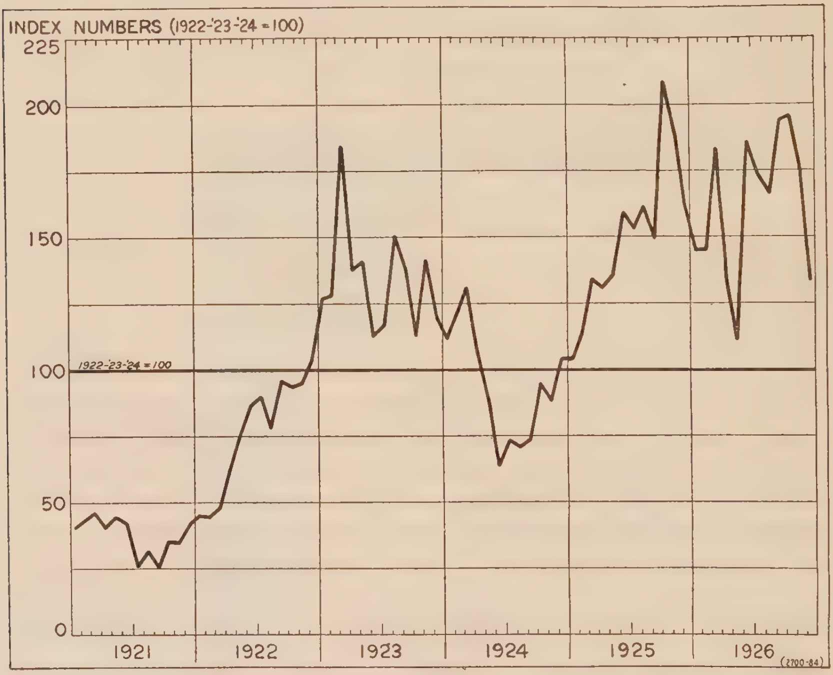


Table 7.—Sales of Foundry Equipment Reported by Members of the Foundry Equipment Manufacturers' Association

NOTE.—In thousands of dollars. Data for 1922, 1923, 1924, are reported by 11 members; for 1925 and 1926, by 13 members. Total sales in 1925, 11 members reporting, $4,665,300.

Month	1922	1923	1924	1925	1926	Month	1922	1923	1924	1925	1926
Total	**2,921**	**4,832**	**3,747**	**4,749**	**5,255**	June	340	441	295	355	435
						July	226	382	202	395	355
January	120	454	417	328	451	August	297	377	237	337	404
February	98	408	387	355	487	September	189	246	219	326	355
March	254	464	388	482	527	October	276	345	260	432	410
April	243	530	375	370	437	November	262	260	285	596	360
May	324	509	285	347	451	December	291	427	398	426	583

Source: Foundry Equipment Manufacturers' Association.

New orders reported by the National Machine Tool Builders' Associations, show an increase of about 8 per cent over 1925 (Table 8), which also was very much above the levels of the previous years. This increase in new orders indicates that equipment in American foundries and machine shops is being much improved.

Table 8.—Machine Tools: Index of Value of New Orders

NOTE.—Made up from reports of dollar figures of gross new orders reduced to percentage of average monthly shipments for years 1922–1924 as 100, from between 50 and 60 firms, said to represent about one-third of the industry.

Month	1921	1922	1923	1924	1925	1926	Month	1921	1922	1923	1924	1925	1926
Year	**37.8**	**76.7**	**134.4**	**94.1**	**150.0**	**162.1**	June	42.2	86.6	113.3	64.0	158.8	186.0
							July	26.0	90.1	117.0	73.0	153.4	173.3
January	41.3	44.9	126.8	112.2	104.2	145.3	August	31.6	78.6	150.5	71.1	161.2	166.9
February	42.9	44.5	128.3	121.9	113.7	145.5	September	25.3	96.1	138.7	73.5	149.4	194.3
March	46.2	48.2	184.5	131.2	133.9	183.2	October	35.3	93.7	113.5	95.0	207.8	195.4
April	41.5	62.4	138.1	106.6	130.9	133.7	November	34.9	95.2	141.1	88.7	188.9	174.7
May	44.4	75.4	141.2	88.2	135.4	112.3	December	41.7	104.1	119.4	104.2	162.4	134.4

Source: Department of Commerce, Survey of Current Business, compiled by National Machine Tool Builders' Association.

The demand for machinery is also related to the demand for industrial building. The following table shows that the floor space and the value of contracts for new industrial buildings have been increasing steadily during recent years, which, of course, necessitates a large amount of new factory machinery. The values refer only to the building and not to the equipment.

Year	27 States		36 States	
	Floor space	Value	Floor space	Value
	Square feet		*Square feet*	
1918	180,900,000	$482,424,000		
1919	153,268,000	512,924,000		
1920	127,830,000	588,965,000		
1921	35,771,000	173,316,000		
1922	65,550,000	325,000,000		
1923	62,205,000	378,815,000	73,421,000	$443,186,000
1924	40,967,000	285,137,000	50,033,000	355,269,000
1925	58,719,000	413,321,000	67,478,000	462,741,000
1926	67,764,000	566,326,000	78,790,000	651,106,000

Progress in Simplification.

Various groups in the industrial machinery field have found that simplification and standardization help greatly to reduce cost of production through improved service, less idle equipment, more efficient labor, and less capital tied up in raw materials. Simplified practice recommendations have been completed for milling cutters, die-head chasers, and carbon brushes and brush shunts, and simplification programs are under consideration for a number of subjects, including punches and dies, heavy loading cranes, metal spools and reels, drills, and reamers. A large number of items were suggested to the Division of Simplified Practice and the National Committee on Metals Utilization as being in need of simplification and standardization. Among these were bearings and bushings, storage batteries, conveyor chains, coal and ash handling machinery, textile machinery, machine tools, expansion lathe mandrels, electric circular hand saws, shafting and pulleys, arbors for drill chucks, and material-handling equipment.

Technical Developments.

Attention has been called to the increasing efficiency of production in the machinery industry, and elsewhere in this volume there are many references to corresponding progress in other industries. Such progress is largely the result of more efficient methods of production and better management, which in turn commonly require improved machinery. Since the armistice there has been an intense effort toward technical improvement in all branches of machinery using and producing industries which is directed toward the reduction of the cost of production and distribution and to an increase in productivity per capita. This is generally recognized as applying particularly to the machine-tool industry, but is found perhaps to a more marked degree in the petroleum, cement, and many other industries. The manufacturers are constantly studying to improve their methods, and the machinery manufacturers are cooperating by rapidly developing equipment that will serve these purposes.

In the woodworking industry, for example, there is a tendency to develop machinery that will manufacture more accurately than has previously been the case and also there is a tendency to combine, in one machine, work that formerly required two or more operations. Stationary machines have been refined and improved in design while the electric drive has been adapted to portable machines. In the petroleum industry improvements have been introduced into the equipment for drilling, pumping, and refining, which, together with the research into the properties of these fuels, have resulted in a larger production of gasoline per barrel of crude oil. Progress is also reported in connection with hydro-electric equipment. The year has also shown great progress in the employment of oil engines, especially in marine service. There has been marked development in the standardization of equipment of this character.

THE INTERNATIONAL SITUATION

Exports from United States.

Further growth was shown by our machinery exports during 1926, although this increase was very small. Since 1922 there has been a continuous expansion of industrial machinery exports.

Table 9.—Value of Total Exports of Industrial Machinery

NOTE.—Totals in this and subsequent tables have been revised to include all, and only items classed as industrial machinery under the new classification adopted January 1, 1926.

Year [1]	Value	Year [1]	Value	Year [1]	Value
1910	$56,807,156	1916	$156,331,210	1921	$243,671,517
1911	74,242,880	1917	224,404,774	1922	129,910,236
1912	78,549,376	1918	232,808,151	1923	141,651,109
1913	97,038,460	1918	220,582,872	1924	145,435,032
1914	86,126,520	1919	295,570,981	1925	172,911,903
1915	80,100,988	1920	360,761,547	1926	179,556,215

[1] Fiscal years to and including 1918. Also calendar year for 1918 and thereafter.

Source: Bureau of Foreign and Domestic Commerce.

Neither Great Britain nor Germany has been able as yet to attain their pre-war volume of machinery exports and the development of our export trade has taken place in the face of most vigorous competition from manufacturers of other countries. By comparing Tables 4 and 9 it is possible to estimate the percentage of American machinery that is exported, which was about 9 per cent for 1914 and 1919, about 12 per cent for 1921, and 6 per cent for 1925. Unquestionably, there is a great unsatisfied market for American machinery in foreign countries, and it is anticipated that this ratio will improve rapidly when conditions in various foreign countries become more favorable.

Chart III.—VALUE OF TOTAL EXPORTS OF INDUSTRIAL MACHINERY

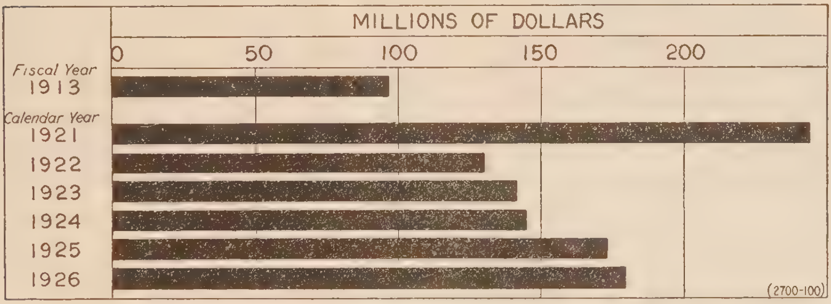


Table 10 shows the value of exports of various kinds of industrial machinery since 1921. Particularly noteworthy are the increased exports of internal combustion engines, and of various types of construction and conveying machinery, mining and quarrying machinery, and oil-well machinery.

More than one-third of our industrial machinery exports in 1926 was shipped to Latin America, a condition that has continued for about three years and is a striking testimonial to the development that is taking place in that area. In contrast, there has been a rather sharp decline in the volume of trade with Asia and Europe. Tables 11 and 12 show the changes that have taken place in the geographical distribution of industrial machinery exports since pre-war years. Canada continues to be the most important single market for American machinery of this character, and the trade in 1926 amounted to $36,000,000, about 27 per cent more than in 1925. Exports to the

United Kingdom and Mexico, which rank next in importance, declined slightly in 1926, and the value of equipment sold to Cuba and Germany was only about one-half as great as in 1925. There is reason to believe that, were funds available, a much greater volume of American machinery would be absorbed by Germany. Exports to Venezuela and Rumania, on the other hand, more than doubled and sales to Chile, Colombia, and many other countries were also much larger.

Table 10.—Value of Exports of Principal Classes of Industrial Machinery

[In thousands of dollars]

Class	1921	1922	1923	1924	1925	1926
Industrial machinery	**243, 672**	**129, 910**	**141, 651**	**145, 435**	**172, 912**	**179, 556**
Steam engines and parts, except locomotives	6, 668	8, 460	8, 238	9, 060	9, 723	9, 599
Locomotives	33, 696	8, 664	4, 422	5, 649	7, 022	5, 113
Internal-combustion engines, except for automobiles, tractors, and aircraft	23, 711	6, 305	8, 354	8, 463	10, 773	13, 388
Construction and conveying machinery:						
Excavators and parts, and accessories	2, 281	1, 390	1, 518	2, 233	4, 018	5, 730
Road-making equipment	990	363	921	1, 195	1, 430	1, 688
Cranes	---------	865	803	1, 304	1, 379	1, 585
Hoist and derricks, except mining	---------	703	784	886	1, 172	1, 237
Elevators, freight and passenger	---------	752	842	789	761	938
Other equipment and parts	2, 561	3, 252	4, 255	4, 253	4, 078	5, 868
Mining and quarrying machinery	7, 564	6, 571	10, 137	10, 078	10, 562	14, 857
Oil-well machinery	11, 307	4, 231	6, 626	6, 399	10, 249	15, 306
Pumping machinery and parts	11, 966	6, 048	7, 462	7, 119	7, 593	8, 187
Metal-working machinery	19, 636	12, 209	13, 105	14, 590	22, 037	18, 866
Textile machinery	19, 928	13, 726	9, 044	8, 752	11, 489	10, 401
Sewing machines and parts	7, 306	9, 136	10, 905	10, 515	10, 634	10, 175
Shoe machinery, except sewing	1, 797	1, 054	1, 324	1, 473	1, 370	1, 353
Sugar-mill machinery	15, 628	3, 799	6, 023	8, 305	8, 270	4, 043
All other industrial machinery	78, 632	42, 383	46, 888	44, 374	50, 350	51, 220

Source: Bureau of Foreign and Domestic Commerce.

Table 11.—Exports of Industrial Machinery, by Regions of Destination

[Value in thousands of dollars]

Destination	1910[1]	1913[1]	1919	1924	1925	1926
Grand total	**[2] 56, 807**	**[2] 97, 038**	**295, 571**	**145, 435**	**172, 912**	**179, 556**
Canada, Newfoundland, etc	12, 745	27, 214	42, 456	24, 603	28, 683	36, 271
Europe	17, 895	30, 940	102, 914	34, 571	49, 197	42, 384
South America	7, 318	13, 244	26, 207	22, 360	32, 674	41, 342
Mexico and Central America	7, 507	7, 350	11, 050	14, 483	15, 864	14, 559
West Indies and Bermuda	3, 280	5, 717	22, 110	14, 088	15, 721	8, 960
Total Latin America	18, 105	26, 311	59, 367	50, 931	64, 258	64, 861
Asia	4, 035	7, 265	74, 607	25, 186	19, 182	21, 935
Oceania	2, 497	3, 711	5, 965	6, 290	6, 974	8, 349
Africa	1, 529	1, 597	10, 244	3, 853	4, 608	5, 755
Other countries	---------	1	19	1	10	2
Percentage to:	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Canada, Newfoundland, etc	22. 4	28. 0	14. 4	16. 9	16. 6	20. 2
Europe	31. 5	31. 9	34. 8	23. 8	28. 5	23. 6
Latin America	31. 9	27. 1	20. 1	35. 0	37. 2	36. 1
Asia	7. 1	7. 5	25. 2	17. 3	11. 1	12. 2
Oceania	4. 4	3. 8	2. 0	4. 3	4. 0	4. 6
Africa	2. 7	1. 6	3. 5	2. 6	2. 7	3. 2

[1] Years ended June 30.

[2] The years 1910 and 1913 are not strictly comparable with later years, owing to the inclusion in both years of "Cash registers, parts of"; in 1910 also were included "Adding and calculating machines," "Cream separators," "Gasoline-marine engines," "Lawn mowers," and "Typesetting and linotype machines," all of which items are not classed as industrial machinery and were not separated in the earlier years, but were included with the items "All other machinery and parts of" and "All other engines and parts of," which items are classed as industrial machinery in all years shown in this table.

Source: Bureau of Foreign and Domestic Commerce.

Table 12.—Exports of Industrial Machinery, by Countries of Destination

[Value in thousands of dollars]

Country	1913	1925	1926
Total, all countries	[1] **97, 038**	**172, 912**	**179, 556**
Canada	27, 081	28, 411	36, 003
United Kingdom	11, 475	20, 220	19, 433
Mexico	5, 628	12, 813	11, 785
Venezuela	498	4, 284	8, 521
Chile	1, 161	5, 105	8, 024
Japan	3, 605	6, 735	[2] 7, 913
Argentina	2, 817	7, 480	7, 048
Australia	3, 144	5, 696	6, 884
Cuba	4, 417	13, 221	6, 632
Colombia	828	3, 620	5, 800
Brazil	6, 359	7, 278	5, 721
France	3, 688	6, 222	4, 709
Russia in Europe	3, 236	3, 894	4, 389
British South Africa	1, 098	3, 193	4, 145
Peru	807	2, 848	3, 995
British India	622	3, 567	3, 402
Germany	5, 558	6, 107	3, 298
Dutch East Indies	427	2, 148	3, 137
Philippine Islands	1, 661	2, 754	2, 592
China	412	1, 595	2, 099
Italy	913	3, 850	2, 052
Spain	921	2, 194	1, 435
New Zealand	529	1, 190	1, 401
Rumania	276	510	1, 350
Belgium	1, 333	991	1, 060
Straits Settlements	109	1, 054	1, 036
Sweden	427	1, 048	897
Dominican Republic	895	1, 103	805
Uruguay	413	617	773
Bolivia	142	741	756
Netherlands	1, 040	1, 231	711
Panama	769	581	683
Portuguese Africa	301	720	683
Salvador	172	529	628
Guatemala	189	764	555
Norway	280	512	505
Nicaragua	187	498	317
Switzerland	81	403	212
All other	3, 539	7, 184	8, 167

[1] Includes cash registers, parts of, not separately shown for 1913.
[2] Includes "Chosen."

Source: Bureau of Foreign and Domestic Commerce.

International Machinery Trade of Leading Foreign Countries.

Great Britain and Germany are our most important competitors in the machinery markets of the world. Table 13 shows that the quantity of industrial machinery exported by the United Kingdom in 1926 was less than in 1925, which probably can be attributed to the British coal strike. It will be noted that the tonnage exported was only about 456,000 tons as compared with 724,000 tons exported in 1913. Values are considerably higher in recent years than before the war, but this is owing largely to the difference in price levels.

Table 13.—Exports of Industrial Machinery from the United Kingdom

[Quantity in tons of 2,240 pounds; value in thousands of pounds sterling. Average exchange rates of the pound: 1913 (par), $4.866; 1924, $4.417; 1925, $4.829; 1926, $4.858]

Class	1913		1924		1925		1926	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Total	**723, 644**	**25, 868**	**437, 545**	**40, 468**	**491, 153**	**44, 759**	**455, 710**	**41, 800**
Rail locomotives and parts [1]	47, 121	2, 782	23, 563	2, 496	30, 437	3, 250	33, 968	3, 622
Textile machinery	178, 097	8, 282	103, 618	10, 831	123, 107	12, 157	101, 543	9, 957
Boilers and boiler-house plant	[2] 68, 612	[2] 1, 778	55, 398	2, 632	55, 791	2, 802	57, 665	2, 923
Prime movers (not electrical)	181, 906	9, 990	50, 695	4, 725	56, 787	5, 424	48, 277	4, 723
Metal-working machine tools	16, 556	1, 009	11, 995	1, 362	14, 291	1, 561	13, 664	1, 535
Other machinery [3]	231, 352	2, 028	192, 276	18, 422	210, 740	19, 565	200, 593	19, 040

[1] Quantity is that of locomotives only; value includes locomotives and parts, except axles, tires, and wheels.
[2] Boilers only.
[3] Includes sewing machines and printing machinery, but excludes typewriters, electrical machinery, airplane and automobile engines, and agricultural machinery.

Source: British Trade Returns.

Table 14 shows changes in the exports of Germany. Owing to the fluctuations in the value of the mark, it is impracticable to give statistics on a money basis. The quantity exported is still far below the pre-war level, although there has been consistent growth since 1924. It should be noted that these returns exclude "reparations in kind," which might modify the conclusions slightly. After the stabilization of the mark and the inauguration of the Dawes plan, German manufacturers found competition in export markets more difficult, but their foreign sales are slowly expanding.

Table 14.—Exports from Germany of Certain Representative Classes of Machinery

NOTE.—Includes all classes of machinery except electrical, agricultural, printing, typewriters, calculating machines, and engines for the propulsion of vehicles.

[In metric tons of 2,204.6 pounds]

Article	1913	1923	1924	1925	1926
Total	**505, 968**	**271, 978**	**240, 179**	**316, 807**	**337, 202**
Railroad locomotives and tenders	54, 445	17, 163	17. 177	22, 574	17, 128
Steam engines	7, 481	1, 492	833	2, 028	1, 801
Steam and gas turbines	1, 627	785	146	825	1, 003
Water-power machinery	5, 248	1, 584	1, 084	2, 058	1. 937
Stationary internal-combustion engines	29, 113	19. 108	12, 988	23, 012	23, 680
Stationary, movable, and floating cranes [1]	9, 222	3, 367	2. 828	5, 487	8, 916
Textile machinery	51, 663	31, 314	29, 445	38, 441	41, 628
Metal-working machinery	74, 336	35, 632	34. 038	45, 183	60, 621
Wood-working machinery	12, 222	12, 879	9, 608	10, 323	9, 229
Sugar machinery	17, 283	2, 319	2, 878	6, 217	6, 141
Pulp and paper machinery	10, 668	4, 050	4, 413	7, 442	7, 829
Pumps and hydraulic machinery [1]	10, 272	5, 825	5, 343	7, 331	7, 426
Grain-milling machinery (except cleaning)	13, 944	8, 357	5, 696	6, 408	5, 872
Machines for sorting, washing, crushing, and shaping coal, ore, and stone	13, 704	2, 897	2, 574	4, 248	4, 744
Other industrial machinery [1]	194, 740	125, 206	111, 128	135, 230	139, 247

[1] Pumps, hammers, blowers, refrigerating machines, hoisting and conveying machinery directly connected with steam engines, turbines, and other power machinery (except electric motors) are included under "Other industrial machinery."

Source: German official trade returns.

France is becoming much more important as a machinery exporter. One of the results of the war has been to greatly increase the French steel-making capacity, which creates a certain demand for machinery and also provides the materials from which it is made. This is also having the effect of placing French manufacturers in a position to export. During the first half of 1926 the depreciation of the franc tended to stimulate these exports, but in the latter part of the year the franc appreciated and efforts were made to stabilize the currency which had an adverse effect upon trade. The machinery exports from France have been (in metric tons) as shown in the following statement:

1913	68, 134
1924	68, 994
1925	77, 396
1926	100, 191

Owing to changes in the boundary, it is scarcely practicable to compare pre-war exports from France with those of recent years. It will be noted that French exports are small compared with those of either Germany or Great Britain, although they have recently shown a considerable expansion.

RAILWAY LOCOMOTIVES AND CARS

The locomotive and car building industries of the United States supply practically all of the equipment for its entire railway system, comprising about 250,000 miles of line. The United States ranks first in the manufacture of railway cars and locomotives, a position which is the natural result of its advantages in production of iron and steel products and of the great extent of its railways.

Establishments engaged primarily in the locomotive industry manufacture chiefly steam locomotives, but produce also a small number of electric and internal-combustion locomotives. Car manufactures include passenger, dining, sleeping, mail, baggage, express, and other cars for passenger traffic and various types of freight cars. Many new locomotives and cars are built by railway repair shops in addition to their great volume of repair work. The electrical machinery industry produces large numbers of electric locomotives. Table 15 presents census data for establishments primarily engaged in the industries specified.

Table 15.—Railway Equipment Industries—Census Statistics

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
RAILROAD LOCOMOTIVE INDUSTRY							
1904	15	24, 806	29, 806	$15, 798, 432	$27, 702, 930	$59, 552, 092	$31, 849, 162
1909	16	14, 909	35, 102	8, 914, 266	15, 059, 983	31, 582. 302	16. 522, 319
1914	19	17, 391	50, 373	11, 085, 375	23. 546, 118	43, 374, 141	19, 828, 023
1919	17	26, 715	96, 504	38, 798, 641	72, 375, 950	156, 269, 730	83, 893, 780
1921	22	16, 583	(1)	20, 472, 715	55, 411, 656	102, 023. 358	46. 611, 702
1923	19	30, 672	91, 214	51, 866, 976	124, 261, 528	215. 392. 951	91, 131, 423
1925	18	12. 809	114. 209	18, 218, 843	41, 717, 142	65, 389, 134	23, 671, 992
STEAM AND ELECTRIC RAILROAD CAR INDUSTRY							
1899	85	37, 038	38. 200	$18, 938, 170	$65, 709, 610	$97, 815, 548	$32, 105, 938
1904	87	38, 788	63, 048	23, 087, 400	80, 998, 570	122, 019, 506	41, 020, 936
1909	124	46, 669	112, 918	29, 312. 171	83, 013, 331	131, 539, 493	48, 526, 162
1914	117	58, 128	135, 898	43, 860, 606	138, 549, 938	205, 270, 622	66, 720, 684
1919	106	55, 218	167, 180	82, 416, 737	368, 143, 487	556, 664, 807	188, 521, 320
1921	118	48, 033	(1)	70, 944, 834	211, 938, 355	340, 536. 225	128, 597, 870
1923	139	80. 590	250, 102	129, 178, 010	413, 660, 102	604, 350, 341	190, 690, 239
1925	141	50, 393	243, 934	77, 246, 992	266, 053, 504	390, 771, 210	124, 717, 706

[1] Not called for in schedule for-1921.

Source: Bureau of the Census.

The value of products and the cost of materials of the railway-locomotive industry both decreased about two-thirds between 1923 and 1925, and were smaller than in any census year since 1914. The value of products in the steam and electric railroad-car industry decreased about one-third in comparison with the 1923 figures, but exceeded 1921 by $50,000,000. These great decreases in production were largely explained by the fact that the railroads were engaged in a comprehensive program for the replacement of equipment in 1923 which enabled them to substantially reduce their purchases of rolling stock in the two following years.

Railway Locomotives.

The total number of locomotives built in the United States in 1926, according to the Railway Age, was 1,770, an increase of 485 over the 1925 total. Although production of locomotives for foreign service fell slightly below the 1925 figure, locomotive construction for domestic and Canadian use increased about 60 per cent over 1925. Unfilled orders at the close of 1926 were slightly larger than at the end of the two preceding years, totaling 583, of which 499 were for domestic service and 84 for foreign order. Locomotives installed on railways of the United States in 1926 totaled 2,399, and those retired, 3,574, leaving 62,428 in active service. The number of locomotives in service has been declining for several years, but this is partly a result of the larger tractive power of the replacements. (See section on Transportation and Communication.)

Table 16.—Railway Locomotives: Production, Orders, and Unfilled Orders

NOTE.—"Production" includes output of Canadian locomotive builders from 1905 to 1911, inclusive, and equipment built in the railroads' own shops from 1912 to 1923, inclusive.

Yearly average or year	Orders				Production			Unfilled orders [1]		
	Total	Domestic service	Canadian service [2]	Other foreign service	Total	Domestic and Canadian service	Foreign service [3]	Total	Domestic service	Foreign service
1901–1905	--------	4,218	(4)	--------	4,308	(5)	(5)	--------	--------	--------
1906–1910	--------	3,489	(4)	--------	4,860	4,344	516	--------	--------	--------
1911–1915	--------	2,742	(4)	--------	3,619	3,064	556	--------	--------	--------
1916–1920	4,218	2,175	(4)	2,043	4,588	2,629	1,959	--------	--------	--------
1921–1925	1,732	1,450	53	229	2,095	1,759	333	772	698	74
1913	--------	3,467	(4)	--------	5,332	4,561	771	--------	--------	--------
1918	4,888	2,593	209	2,086	6,475	3,668	2,807	--------	--------	--------
1919	1,170	214	58	898	3,272	2,162	1,110	--------	--------	--------
1920	2,905	1,998	189	718	3,672	2,022	1,650	1,447	1,016	431
1921	820	239	35	546	1,823	1,185	638	367	263	104
1922	2,799	2,600	68	131	1,534	1,303	231	892	826	66
1923	2,142	1,944	82	116	3,785	3,505	280	1,636	1,573	63
1924	1,626	1,413	71	142	2,036	1,810	226	499	447	52
1925	1,274	1,055	10	209	1,285	994	291	467	381	86
1926	1,542	1,301	61	180	1,770	1,585	185	583	499	84

[1] Monthly averages.
[2] Placed by Canadian roads with Canadian production plants.
[3] Other than Canadian, which is included in production for domestic service.
[4] Canadian orders included under "Domestic."
[5] Data not available.

Sources: Orders and production from Railway Age; unfilled orders from Department of Commerce, Survey of Current Business.

During 1926 there were 271 steam locomotives, valued at $5,113,000, exported from the United States, compared with 363, valued at $7,022,000, exported in 1925. The largest purchases were made by Brazil, British South Africa, and Canada.

Freight Cars.

The number of freight cars ordered for steam railways in 1926 totaled 70,495, a decline of over 26 per cent from the total ordered in 1925. During the greater part of the year the freight-car market was stagnant. Approximately one-half of the total orders for the year was placed in the first two months. Canadian orders were over twice as numerous as in 1925, but were much smaller than in 1923 or 1924. Production also declined 16 per cent in 1926, and the total number of freight cars in service was reduced from 2,387,551 to 2,336,470.

Exports of freight cars in 1926 decreased to 4,462, valued at $3,906,000, compared with 6,171, valued at $7,153,000, in 1925. The principal countries to which freight cars were shipped during 1926 were Cuba, Colombia, and Guatemala.

Table 17.—Steam Railway Passenger and Freight Cars Ordered and Built

Year	Orders				Production		
	Total	United States domestic	Canadian plants	United States for export	Total [1]	On domestic orders	On foreign orders
Passenger cars:							
1915	----------	1,978	----------	(2)	1,866	1,852	14
1917	1,167	1,124	----------	43	1,955	1,924	31
1918	57	9	22	26	1,572	1,480	92
1919	782	292	347	143	391	306	85
1920	2,094	1,781	275	38	1,440	1,272	168
1921	492	246	91	155	1,314	1,275	39
1922	2,488	2,382	87	19	820	676	144
1923	2,483	2,214	263	6	1,536	1,507	29
1924	2,679	2,554	100	25	2,213	2,150	63
1925	2,317	2,191	50	76	2,413	2,363	50
1926	2,162	1,868	236	58	2,286	2,184	102
Freight cars:							
1915	128,014	109,792	(3)	18,222	70,142	58,226	11,916
1917	132,558	79,367	(3)	53,191	139,643	115,705	23,938
1918	177,317	114,113	9,657	53,547	108,044	67,063	40,981
1919	29,893	22,062	3,837	3,994	156,764	94,981	61,783
1920	105,669	84,207	12,406	9,056	75,435	60,955	14,480
1921	28,358	23,346	30	4,982	46,704	40,292	6,412
1922	181,972	180,154	746	1,072	67,415	66,289	1,126
1923	103,552	94,471	8,685	396	178,166	175,748	2,418
1924	149,612	143,728	1,867	4,017	114,902	113,761	1,141
1925	95,596	92,816	642	2,138	108,945	105,935	3,010
1926	70,495	67,029	1,495	1,971	91,633	88,862	2,771

[1] Figures do not include Canadian production.
[2] Data not available.
[3] Canadian orders included under "Domestic."

Source: Railway Age.

Passenger-Train Cars.

Orders for passenger cars totaled 2,162 in 1926 which was 7 per cent less than in 1925 and 19 per cent less than the record total of 1924. Of this number, 1,868 were for American and 236 for Canadian use, representing a decrease in the former and an increase in the latter. Orders for passenger cars were irregular throughout the year.

Exports of steam railway passenger cars totaled 249, valued at $1,324,000 in 1926, which was larger than in either of the two preceding years. The value of exports was almost twice as large as in 1925. During 1926 there were 89 electric passenger cars, valued at $674,000, exported, compared with 56 valued at $518,000 in 1925, ut exports were smaller than in 1924.

ELECTRICAL EQUIPMENT AND MATERIALS

SUMMARY.—The production of electrical equipment and materials during 1925 (the last year for which census figures are available), was valued at $1,628,000,000, exceeding the total for 1923 by 19 per cent (Table 19). It is estimated that the value of production in 1926 was $1,800,000,000. During 1926 there were no appreciable general price changes. Exports of electrical goods increased 14 per cent in value over the previous year. Practically all important classes of electrical equipment, except radio apparatus, shared in the gain.

Table 18.—The Electrical Machinery, Apparatus, and Supplies Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	581	42, 013	42, 682	$20, 579, 194	$49, 458, 272	$92, 434, 435	$42, 976, 163
1904	784	60, 466	102, 493	31, 841, 521	66, 836, 926	140, 809, 369	73, 972, 443
1909	1, 288	94, 972	157, 809	54, 176, 277	116, 179, 740	239, 427, 433	123, 247, 693
1914	1, 293	123, 441	232, 162	77, 547, 998	161, 560, 731	350, 638, 469	189, 077, 738
1919 [1]	1, 662	219, 051	438, 082	245, 459, 579	438, 594, 304	1, 028, 503, 434	589, 909, 130
1921 [1]	1, 558	168, 156	(2)	202, 977, 489	358, 432, 446	866, 532, 710	508, 100, 264
1923 [1]	1, 994	245, 444	492, 888	319, 674, 563	571, 950, 160	1, 349, 182, 838	777, 232, 678
1925 [1]	2, 068	251, 486	603, 126	340, 368, 655	664, 941, 688	1, 608. 843, 424	943, 901, 736

[1] Figures include data for "electric fixtures" and "combination gas and electric fixtures;" in 1925, also "gas fixtures."

[2] Not called for in schedule for 1921.

Source: Bureau of the Census.

Production by Classes.

The only complete statistics of production of electrical machinery are those of the biennial censuses, the last of which now available relates to 1925. In Table 19 is shown the value of each of the principal classes of apparatus manufactured in the last three census years. The totals given differ from the total value of the products of the electrical industry shown in Table 18, because they include products made by establishments engaged primarily in the manufacture of other articles and classified under other industries. Marked increases were shown for 1925 as compared with 1923 in the value of output of practically every class of equipment. The exceptions were a sharp decline in the production of electric railway line material and slight decreases in output of telephone apparatus, electric signals, motor control apparatus, and wiring devices. While the rate of track extension of electric railways continued to increase at the same rate as in 1923, a very sharp decline in the amount of rebuilt track was recorded. This can be partly explained by the low replacement rate during the 1917–1921 period, which caused replacements to reach a peak in 1923. The decrease in the amount of telephone apparatus resulted from the same cause; that is, the period of deferred replacements which has now passed.

The most important increase in production of electrical equipment according to the census of 1925 was shown by radio apparatus, the output of which was over three times as great as in 1923. Production of rectifying apparatus and railway signaling apparatus more than doubled, and there were also very pronounced increases in the value of output of both primary and storage batteries, telephone apparatus, fire and police alarm apparatus, lightning arresters, and electrotherapeutic apparatus. Production of electric household appliances reached a total value of $77,000,000, an increase of 16 per cent as compared with 1923.

Table 19.—Value of Electrical Machinery, Apparatus, and Supplies Manufactured

NOTE.—Includes products made by establishments in other industries.

[In thousands of dollars]

Article	1921	1923	1925
Total	**$850, 535**	**$1, 365, 054**	**$1, 628, 037**
Generating apparatus	58, 861	99, 072	101, 921
Transformers and synchronous converters	42, 103	59, 115	62, 153
Motor-generator sets and dynamotors	6, 311	7, 305	8, 264
Motors	74, 447	109, 189	113, 110
Fans, electric	8, 611	12, 054	12, 563
Control apparatus	19, 551	33, 177	31, 303
Electric locomotives	9, 397	8, 865	10, 331
Storage batteries	48, 558	92, 843	110, 212
Primary batteries	18, 325	25, 222	45, 036
Carbons	5, 528	14, 746	13, 955
Searchlights, etc	1, 943	2, 479	2, 801
Incandescent lamps	59, 728	71, 966	73, 558
Radio apparatus:			
Radio tubes	1, 098	9, 824	21, 171
Other radio apparatus	9, 550	44, 176	155, 820
Rectifying apparatus	956	4, 251	10, 466
Telegraph apparatus	244	2, 086	2, 922
Fire and police alarm apparatus	2, 404	2, 640	3, 490
Telephone apparatus	101, 992	90, 858	81, 510
Industrial apparatus, not including motor-driven tools and devices	3, 822	6, 788	10, 283
Household appliances	37, 671	67, 002	77, 416
Electric measuring instruments	21, 033	28, 221	31, 650
Magneto ignition apparatus	[1] 20, 589	[1] 31, 831	41, 854
Switchboards, etc	36, 299	57, 856	69, 759
Railway signaling apparatus	[1] 1, 620	[1] 4, 466	14, 030
Fuses and fuse plugs	4, 483	9, 245	10, 393
Insulators	6, 509	[2] 16, 374	[2] 17, 858
Wiring devices	21, 806	34, 966	34, 806
Lightning arresters, etc	2, 044	3, 834	5, 961
Insulated wire and cable	98, 333	184, 472	209, 586
Electric railway line material	2, 691	8, 796	4, 240
Conduits and fittings	19, 346	37, 500	47, 442
Electric lighting fixtures	28, 142	57, 817	62, 620
Electric signals	6, 444	7, 142	5, 081
Electrotherapeutic apparatus	6, 820	5, 991	9, 788
All other electrical items	63, 276	112, 885	114, 684

[1] Figures for 1921 and 1923 not strictly comparable with those for 1925.

[2] In addition, porcelain electrical supplies to the value of $21,826,971 in 1925 and $21,248,382 in 1923 were made by establishments engaged primarily in the manufacture of pottery.

Source: Bureau of the Census.

Business in 1926.

The year 1926 has seen a continuance of great activity in the electrical manufacturing industry. The volume of production exceeded the previous record output of 1925. It is estimated from information received from reliable sources within the industry that the value of output was about $1,800,000,000, or approximately 10 per cent greater than in 1925. Addition to existing generating plants and new construction totaled 2,400,000 kilowatt amperes. Most manufacturers experienced a prosperous year, with the exception of the radio industry, which overproduced. The widespread application of power supply to the operation of receiving sets has been the outstanding development in the radio field. Sales of refrigerators have shown an enormous growth; estimates of the trade indicate a sale of 250,000 units in 1926, over three times as many as in 1925.

Clocks actuated by central station supply were among the new products offered the householder. Sales of all types of electric clocks, including those already offered for office buildings totaled 90,000 units. The sales of other appliances, such as irons, vacuum cleaners, washing machines, and other well-established household utilities, show an increase of 10 per cent over 1925. The lesser used appliances, such as ironing machines and dishwashers, show an increase in sales of approximately 50 per cent.

Price Movement.

Because of the large number of products manufactured by the industry and the variations in sizes, styles, and character of those even of a given designation, it is difficult to summarize the price trend as a whole. As nearly as can be determined, however, there was no marked price change during 1926.

Exports by Articles.

Exports during 1926 showed a substantial increase, as has been the case in every year since 1922. The value of electrical machinery and supplies exported was over $84,000,000, or 14 per cent more than in 1925. Exports were about three times as large as in 1913, and probably exceeded in quantity the peak shipments of 1919 and 1920.

Table 20 shows the value of our exports of electrical machinery and appliances by principal classes, but does not include a number of electrical items reported under other general classifications such as rubber and friction tape, insulated wire and cable, bare copper wire, iron and steel wire for electrical purposes, electrical glassware, electrical porcelain, and electrical carbon products. Built-in motors on machine tools, starting and lighting equipment of complete motor cars, and other items in which the value of the electrical portion is usually smaller than that of the remainder are also omitted from the totals of Table 20.

Exports of electric locomotives were over three times as great in value as in 1925. Exports of telegraph apparatus more than doubled and there were increases of over 50 per cent in our exports of bells and buzzers, converting apparatus, flash lights, and primary batteries.

Table 20.—Exports of Electrical Machinery and Appliances, by Articles

[Value in thousands of dollars]

Item	1922	1923	1924	1925	1926
Total	**53,147**	**59,927**	**69,828**	**73,790**	**84,226**
Generators and accessories	4,265	3,978	4,588	5,365	5,208
Self-contained lighting units	442	610	780	1,076	1,151
Primary batteries	1,083	1,273	1,711	2,416	3,695
Storage batteries	1,474	2,344	2,883	2,683	3,443
Transformers	4,906	3,956	5,654	3,491	3,497
Converting apparatus	1,367	999	1,157	967	1,557
Switchboard panels	2,702	1,668	2,163	2,305	2,193
Switches and circuit breakers	1,892	1,796	2,245	2,424	2,618
Fuses and fuse blocks	199	311	282	343	352
Meters and testing apparatus	1,441	1,546	1,991	2,143	2,645
Protective devices	678	616	920	707	709
Motors under one horsepower	772	1,728	1,687	2,102	2,000
Larger motors	3,535	4,792	4,296	3,884	5,218
Accessories and parts for motors	1,138	1,659	1,998	2,040	2,730
Starting and controlling equipment	920	1,752	1,536	1,437	1,598
Electric locomotives	1,078	3,314	2,243	812	2,601
Electric fans	816	859	1,028	917	948
Incandescent lamps	1,287	1,193	1,070	1,250	1,603
Other lamps	206	235	365	244	281
Flash lights	254	494	776	1,342	2,058
Searchlights and projectors	280	366	381	562	574
Motor-driven household appliances	642	866	888	1,206	1,744
Domestic heating and cooking devices	597	984	1,104	1,340	1,722
Industrial ovens and furnaces	238	214	240	252	253
Therapeutic apparatus	586	871	1,058	1,415	1,478
Radio apparatus	2,898	3,448	6,031	9,904	8,794
Telegraph apparatus	316	690	516	497	1,018
Telephone apparatus	4,391	1,125	3,983	3,719	5,124
Railway signals, etc	685	734	964	803	505
Bells, buzzers, etc	64	107	149	171	296
Ignition apparatus	1,093	1,695	1,911	2,708	1,904
Insulating materials	889	1,436	1,536	1,545	1,380
Wiring supplies	2,126	3,447	3,756	4,838	5,906
Other apparatus, n. e. s	7,887	8,822	7,938	6,883	7,423

Source: Bureau of Foreign and Domestic Commerce.

Considerable improvement was shown during 1926 in the exports of heavy equipment, shipments of steam turbine generator sets increasing in value about 77 per cent, and rectifiers, double current and motor generators, dynamotors, and synchronous and other converters about 61 per cent. Exports of direct-current generators were greater, but those of alternating current decreased. Motors of over one horsepower showed a gain of about one-third, but there was a slight decline in exports of smaller motors. There was an increase of 20 per cent in the exports of starting and control equipment for industrial motors.

Motor-driven household devices and domestic heating and cooking devices continue to find a good market in foreign countries, showing increases of 45 per cent and 28 per cent, respectively. American-made electric fans have had considerable competition with cheaper foreign makes, but the exports for 1926 compared favorably with those of the previous year.

Shipments of radio equipment have decreased about 11 per cent in value during the past year, amounting to $8,794,000 in 1926. Ignition apparatus, generators of 2,000 kilovolts and over, small motors, and switchboard panels were also exported in smaller quantities.

Destination of Exports.

The North American countries are the most important export markets. Canada is the largest single purchaser. Exports to Cuba decreased 31 per cent, while those to Mexico increased. South America, as a whole, bought about 48 per cent more from us in 1926 than in 1925. The principal markets there are Brazil, Argentina, and Chile. The exports to Asia showed a general improvement, the total being greater than for the three preceding years. Japan maintained its position while exports to China increased 26 per cent. The business with British India continued to increase.

Table 21.—Exports of Electrical Machinery and Appliances, by Countries of Destination [1]

[Value in thousands of dollars. Total in 1913, $27,046,000, and in 1919, $89,926,000]

Country	1923	1924	1925	1926
Total	**59,927**	**69,828**	**73,790**	**84,226**
Europe	11,505	11,393	12,805	11,399
Belgium	455	656	630	541
France	2,808	2,248	1,370	841
Italy	273	692	701	678
Netherlands	378	548	500	529
Spain	1,740	1,506	2,148	1,347
United Kingdom	4,252	4,182	5,391	4,938
All other	1,596	1,561	2,064	2,525
North America	18,576	24,799	26,040	26,228
Canada	10,967	13,014	14,363	15,976
Mexico	2,871	5,467	4,364	4,413
Cuba	2,917	4,086	4,796	3,292
All other	1,821	2,232	2,516	2,546
South America	10,331	9,209	11,981	17,741
Argentina	3,127	2,543	3,768	4,676
Brazil	1,790	2,915	4,001	4,292
Chile	3,687	1,730	1,750	5,066
Colombia	523	570	685	1,148
Peru	419	627	575	699
All other	784	825	1,202	1,860
Asia	12,542	16,312	15,085	17,235
British India	1,640	1,011	1,650	2,144
China	1,286	856	868	1,096
Japan	8,244	12,002	10,111	[2] 10,719
All other	1,372	2,442	2,456	3,277
Oceania	5,843	6,545	6,602	9,891
Australia	4,543	5,237	5,104	7,603
New Zealand	1,269	1,272	1,452	2,203
All other	31	36	47	84
Africa	1,131	1,569	1,276	1,733
British South Africa	972	1,396	1,092	1,409
All other	159	173	185	324

[1] See text for exports of such items as high-tension insulators, wire, etc., which are not included in this table.

[2] Includes "Chosen."

Source: Bureau of Foreign and Domestic Commerce.

Our exports of electrical machinery to Europe decreased about 11 per cent. The United Kingdom continues as the largest purchaser in Europe, taking more than three times the amount which went to Spain, our second best European market. Shipments to Spain decreased 37 per cent in 1926. Our exports to France and Belgium continued to show decreases, amounting to 39 and 14 per cent, respectively. There was a 50 per cent increase in the business with Oceania; Australia, the principal purchaser in that region, took a larger amount than for several years. Our exports to Africa as a whole increased 36 per cent, the increase being general for all sections.

AGRICULTURAL MACHINERY AND EQUIPMENT

Scope of the Industry.

The most important articles produced by the agricultural machinery and equipment industry are those which are generally referred to as farm implements—plows, cultivators, harrows, seeders, planters, hayrakes, mowers, reapers, binders, threshers, harvesters, and other machines with more specialized functions. Tractors are assuming an increasingly important place in the output of many implement manufacturers. Other items also coming within the scope of the industry are dairy and poultry equipment, farm wagons, windmills, farm engines, pumps for farm use, spraying apparatus, and barn equipment. The United States holds first rank among countries in the production and consumption of agricultural implements.

Census Statistics.

Census figures given in Table 22 are for the agricultural implement industry proper and do not include implements manufactured by concerns whose chief product is something other than this type of equipment, nor do they include concerns chiefly engaged in making wagons or tractors. The number of establishments has been constantly decreasing, and the number of wage earners has also shown a decreasing tendency. In 1925 the number of wage earners in the implement industry was 41 per cent less than in 1914, 47 per cent less than in 1919, and slightly less than in 1923. Both the total value of agricultural implements produced and the value added by manufacture were larger in 1925 than in any other census year except 1919.

Table 22.—Agricultural Implement Industry[1]

Year	Establishments [1]	Wage earners (average number)	Horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	715	46,582	70,646	$22,450,880	$43,944,628	$101,207,428	$57,262,800
1909	640	50,551	100,601	28,608,615	60,306,519	146,329,268	86,022,749
1914	601	48,459	121,256	34,593,325	73,508,645	164,086,835	90,578,190
1919	521	54,368	128,249	66,704,434	144,571,943	304,961,265	160,389,322
1921	353	30,359	[2]	39,835,414	87,267,274	163,816,679	76,549,405
1923	312	30,962	121,975	40,510,534	63,491,886	151,286,248	87,794,362
1925	303	28,696	115,325	37,387,620	73,850,060	169,467,966	95,617,906

[1] Includes only those establishments whose products of chief value are agricultural implements. The decrease in the number of establishments is due in some measure to consolidations, but also to changes in classification.

[2] Not called for in schedule for 1921.

Source: Bureau of the Census.

Production by Classes.

The value of agricultural equipment produced in recent years is shown in Table 23. This table is more comprehensive than Table 22, in that it covers the output of farm wagons and tractors and includes also implements made as a secondary product of concerns primarily engaged in other industries. The figures for 1926 are preliminary but represent practically complete returns. The total value was $461,400,000 in 1926, which was 18 per cent more than in 1925 and was greater than in any year on record except 1920. There were increases in all lines of farm equipment except haying machinery, horse-drawn vehicles, and barn and barnyard equipment. Production of harvesting machinery and of harrows, rollers, pulverizers, and stalk cutters increased by more than one-half as compared with 1925.

Table 23.—Value of Production of Agricultural Machinery, Tractors, and Farm Vehicles, by Principal Groups

[In thousands of dollars]

Item	1922	1923	1924	1925	1926
Grand total	**$209, 640**	**$364, 854**	**$323, 367**	**$391, 812**	**$461, 400**
Farm tractors	52, 314	92, 085	82, 498	121, 050	145, 913
Total, other machinery, etc	157, 326	272, 769	240, 869	270, 762	315, 487
Plows and listers	9, 680	24, 252	21, 030	23, 937	33, 148
Harrows, rollers, pulverizers, and stalk cutters	4, 734	11, 532	9, 717	10, 179	15, 553
Planting and fertilizing machinery	7, 003	14, 154	14, 610	20, 890	26, 591
Cultivators and weeders	4, 205	13, 238	14, 648	17, 671	20, 311
Harvesting machinery	11, 822	26, 278	29, 752	28, 386	46, 007
Haying machinery	7, 625	15, 503	15, 767	15, 457	13, 951
Machines for preparing crops for market or use	18, 969	31, 519	24, 190	28, 488	34, 127
Horse-drawn vehicles	11, 953	24, 553	15, 537	17, 488	13, 658
Barn and barnyard equipment	4, 536	9, 910	6, 440	8, 970	8, 692
All other farm equipment	76, 799	101, 830	89, 178	99, 296	103, 449

Source: Bureau of the Census.

Table 24.—Production of Agricultural Implements (Number)

Class	1923	1924	1925	1926
Plows:				
Moldboard	668, 126	537, 595	541, 393	630, 189
Disk	19, 299	12, 874	20, 424	24, 250
Listers	42, 989	41, 030	38, 826	56, 087
Harrows	481, 822	378, 229	408, 705	579, 577
Corn planters:				
Hand	43, 271	23, 710	29, 486	18, 674
1 and 2 row	63, 006	58, 843	59, 830	72, 242
Cotton planters, 1-row	20, 825	24, 536	32, 139	23, 697
Combined corn and cotton planters:				
1-row	34, 791	50, 919	52, 140	65, 235
2-row	8, 953	5, 830	10, 787	9, 013
Grain drills, horse and tractor	30, 572	15, 579	32, 582	45, 446
Broadcast seeders	78, 438	75, 480	78, 552	77, 439
Cultivators	553, 567	491, 620	611, 840	613, 331
Grain binders	62, 764	55, 731	42, 405	79, 155
Combined harvesters and threshers	4, 012	5, 828	5, 131	11, 760
Corn binders	15, 719	17, 267	20, 829	26, 449
Potato diggers:				
Elevator type	10, 099	7, 438	4, 594	7, 036
Plow type	2, 525	2, 840	2, 027	3, 098
Mowers	130, 374	126, 448	112, 299	112, 259
Rakes, hay	80, 647	77, 542	87, 616	72, 537
Loaders, hay	23, 340	13, 484	15, 746	19, 793
Grain threshers	13, 957	10, 929	14, 923	17, 830
Ensilage cutters (silo fillers)	12, 846	10, 582	8, 771	8, 857
Fodder cutters		3, 626	5, 841	5, 945
Corn shellers	45, 771	38, 967	43, 386	44, 713
Feed grinders and crushers	99, 425	93, 207	98, 051	108, 752
Farm tractors, gas [1]	136, 584	120, 643	167, 553	181, 995
Farm wagons, 1 and 2 horse	147, 039	84, 852	108, 477	74, 693
Cream separators	162, 169	143, 977	170, 505	194, 270
Milking-machine units	11, 243	12, 274	15, 004	17, 653
Fertilizer distributers (horse)	38, 398	50, 730	68, 058	84, 407
Internal-combustion engines, farm use	163, 910	120, 458	182, 415	177, 247
Manure spreaders	36, 548	35, 842	53, 839	68, 989
Incubators	256, 166	206, 796	161, 360	160, 753
Brooders	217, 365	149, 669	135, 578	207, 009
Water pumps, hand and windmill	968, 083	729, 479	858, 270	705, 015
Silos	7, 755	7, 352	5, 779	5, 736
Water-supply systems	21, 797	58, 390	103, 777	100, 236
Windmills	76, 335	77, 393	55, 068	84, 949
Spraying outfits	203, 617	152, 261	257, 690	257, 818

[1] Includes motor cultivators and garden tractors.

Source: Bureau of the Census.

Table 24 shows the number of implements produced by principal types in each of the last four years. It includes both the products of establishments classed under the agricultural implement industry and those made as secondary products by other establishments. The quantity of most types of agricultural implements produced was larger in 1926 than in any other year.

Price Movement and Market Conditions.

Price fluctuations in the implement industry were very small during 1926. For the most part the same prices prevailed as in 1925, and such changes as occurred were downward, resulting in a general decrease in the price level of agricultural implements of 1 or 2 per cent. The general tendency during the past three years has been toward a lower price level. It is difficult to measure adequately agricultural implement prices and their recent fluctuations, by reason of the many varieties of implements manufactured and the many types and sizes of each kind of implement.

While it is possible to generalize as to the trend on specific types of implements manufactured, there may be increases in the price of an implement produced by one manufacturer and a decrease in the price of a similar implement manufactured by another. In the year under review some manufacturers showed no price changes whatever and those reported by others were very small. To illustrate some of the changes, a 14-inch steel beam plow made by one firm showed a decrease in price of 10 per cent in 1924 and has continued at the same price ever since. Another firm sold its 2-horse cultivator for $0.95 less in 1926 than in 1925, while another firm increased the price of a disk harrow in 1926 by $0.50. Practically no change occurred in the price of tractors during the year.

During the first half of 1926 the agricultural industry in the United States enjoyed considerable activity. Sales were considerably above those for the same period of 1925, but beginning in July, business declined. The reasons for this slump were the unfavorable position of the cotton farmers in the fall, spotty conditions in the wheat territory, low prices and poor crops in the cotton-growing section, and decreased export demand.

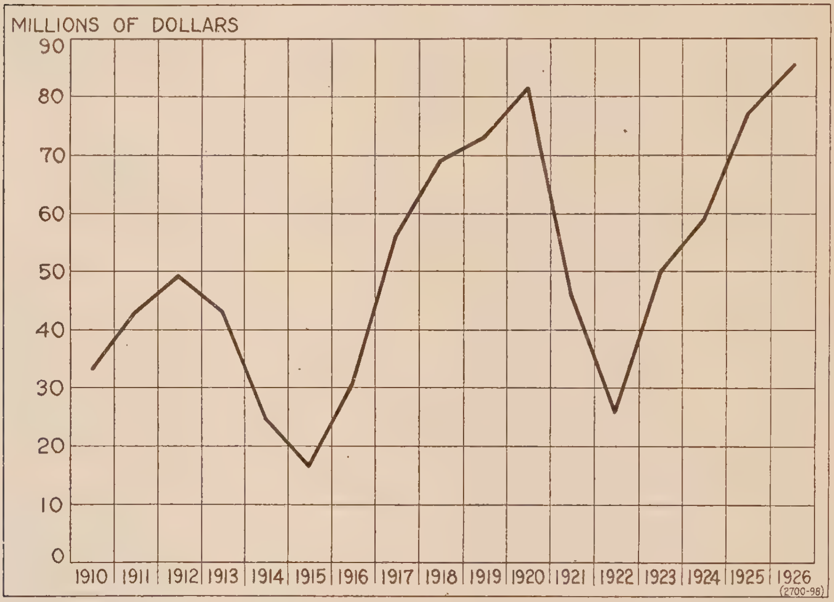
At the close of the year the situation was generally less favorable than at the end of 1925. Most firms showed a net gain in business during 1926, as compared with 1925, although some firms which enjoyed a large increase during the first six or seven months of the year registered a net loss for the year as a whole. In some instances the net gain for the year ran as high as 20 per cent, although the average increase was considerably less. Most material prices have not changed greatly in the past three years, and such changes as have occurred were not important.

FOREIGN TRADE

Exports.

A new record was established in exports of agricultural implements from the United States during 1926, when the total value amounted to $85,667,000. This figure has not been equaled in any previous calendar year, but was exceeded by the exports for the 12 months ended June, 1926, and is considerably more than double the average of implements exported annually during the years immediately preceding the war. The highest previous value of exports was $81,422,000 in 1920, but that was a year of abnormal demand and high prices, whereas the present figure is the result of a consistent growth in quantity exported since 1922. Implement exports during the first half of the year exceeded those during the latter half, as there was a slump during the months of October, November, and December. The fluctuation of implement exports since 1910 is shown by calendar years in Chart IV and in the following table:

Chart IV.—VALUE OF TOTAL EXPORTS OF AGRICULTURAL MACHINERY



Year	Value	Year	Value	Year	Value
1910	$32,971,912	1916	$30,315,735	1922	$26,167,238
1911	42,995,039	1917	56,209,700	1923	50,570,226
1912	49,249,041	1918	69,196,030	1924	59,823,678
1913	42,990,763	1919	72,929,027	1925	77,565,153
1914	24,733,194	1920	81,422,090	1926	85,666,573
1915	16,718,923	1921	46,126,964		

Table 25 shows the value of exports of agricultural implements by classes. Exports of wheel tractors, harvesters, and dairy equipment were larger in 1926 than in any of the preceding four years, while mower exports were unusually small.

The demand for American implements during 1926 showed a tendency to concentration among a few of the more important markets. This is indicated by the fact that 83 per cent of the total shipments of implements during the year were purchased by 10 countries, while more than one-half went to the three largest buyers. Despite an increase of 10 per cent in the total exports, as compared with 1925, there were numerous decreases in shipments to the less important implement markets, and even to some of the larger ones.

The largest purchasers of American implements in 1926 were Canada, Argentina, and France, shipments to these countries amounting to $21,845,000, $17,078,000, and $7,076,000, respectively. The outstanding feature of the year was the unprecedentedly large shipments to Canada, which was the largest market and which alone took 25 per cent of the total. Canadian purchases represent an increase of more than $7,500,000 as compared with 1925, and when contrasted with implement shipments in 1924, amounting to $7,500,000, demonstrate strikingly the rapidity with which the demand for American implements has increased in Canada during the past two years. Shipments to Argentina in 1926 were nearly $1,000,000 less than in 1925. French purchases of American implements in 1926 were somewhat less than in 1924, but showed an increase of over $1,400,000 over the 1925 purchases. The increase in purchases in 1926 occurred despite the increased production of implements in France. More than 50 per cent of the implements imported into France in 1926 were of American origin.

Table 25.—Value of Exports of Agricultural Implements, by Classes

[In thousands of dollars]

Class	1922	1923	1924	1925	1926
Total	**26,167**	**50,570**	**59,824**	**77,565**	**85,667**
Dairy equipment	778	1,347	1,259	1,842	2,128
Plows	1,538	3,998	5,283	7,636	5,542
Harrows	272	660	863	1,561	1,440
Planters	64	130	314	642	551
Drills and seeders	296	852	1,162	1,811	1,571
Mowers	983	2,156	3,378	2,367	1,211
Lawn, hand, and power mowers	438	(1)	(1)	746	875
Hay rakes and tedders	130	256	415	691	273
Harvesters and binders	2,063	3,911	7,639	5.339	7.874
Threshers	2,601	6,814	5,515	3,503	5,156
Wheel tractors	5,089	11,213	13,178	26,142	28,282
Track-laying tractors	799	1,489	1,492	1,838	2,204
Windmills	804	1,364	1,587	2,127	1,850
All other and parts	10,312	16,380	17,739	21,320	26,710

[1] Included with mowers.

Source: Bureau of Foreign and Domestic Commerce.

Tractors continue to occupy an increasingly important position in the implement trade of the United States and exports of tractors, including parts, have more than doubled since 1924 and amounted to $36,100,000 in 1926. Tractor exports in 1926 were 42 per cent of the total implement exports and most of these were wheel tractors. Canada, Russia, Australia, Italy, France, and Argentina are the largest markets for American tractors, and in all of these countries American tractors predominate. Purchases of wheel tractors by Canada increased in 1926 to a total of 8,173, valued at $6,823,648. This comprised the largest shipments to any country measured by value, but was exceeded in number by those shipped to Russia. Most of these shipments to Russia were made in the first quarter of the year.

Table 26.—Value of Exports of Agricultural Implements, by Grand Divisions and Principal Countries of Destination

[In thousands of dollars]

Grand division and country	1913	1924	1925	1926
Total	**42,991**	**59,824**	**77,565**	**85,667**
Europe	20,237	17,937	24,902	26,611
France	4,146	7,227	5,649	7,076
Italy	426	1,376	4,058	4,282
Russia in Europe	6,879	628	7,011	6,513
United Kingdom	1,208	1,959	2,467	2,576
All other	7,578	6,747	5,717	6,164
North America	10,511	11,167	17,962	25,720
Canada	9,618	7,500	14,163	21,845
Mexico	435	1,497	2,139	2,566
Cuba	316	1,523	892	671
All other	142	647	769	638
South America	8,018	19,958	22,219	20,402
Argentina	6,596	17,224	18,024	17,078
Brazil	366	695	1,053	442
All other	1,056	2,040	3,142	2,883
Asia	778	1,232	1,290	1,355
British India	15	207	325	251
Japan	21	264	185	[1] 241
Philippine Islands	108	189	203	278
Russia in Asia	473	242	109	86
Turkey in Asia	39	99	153	63
All other	122	231	314	435
Oceania	1,471	5,679	6,388	6,439
Australia	1,085	4,738	4,672	5,340
New Zealand	367	853	1,617	1,058
All other	19	88	99	40
Africa	1,976	3,851	4,804	5,139
British South Africa	1,650	2,310	2,721	2,547
Algeria and Tunis	(2)	935	911	1,186
All other	326	606	1,172	1,406

[1] Includes "Chosen." [2] Included in "All other."

Source: Bureau of Foreign and Domestic Commerce.

Among the continents the largest purchaser of American implements in 1926 was Europe, which took 31 per cent of the total. Total shipments to Europe amounted to $26,611,000, which was an increase of 7 per cent over those in 1925. Three-fourths of the European purchases were made by four countries, namely, France, Italy, Russia, and the United Kingdom. Exports to North America, including Central America and the West Indies, amounted to $25,720,000, which was 43 per cent more than in 1925. Most of this increase was owing to larger purchases by Canada in 1926. Shipments to South America were confined chiefly to one country, Argentina, and the total exports to that continent amounted to $20,402,000, which was 8 per cent less than in 1925. Exports to Oceania, Africa, and Asia were relatively small, but showed increases as compared with 1925.

Imports.

Imports of agricultural implements into the United States have nearly doubled within the last two years and in 1926 amounted to $5,012,000, as compared with $3,094,000 in 1925. Canada is the principal source of imported implements, but the amount of these used in the United States in comparison with our total production of implements is so small as to be practically negligible. The increase in imports in the past year amounted to 62 per cent, which indicates, mainly, an increase in interchange of commodities between the United States and Canada.

ACTIVITIES OF PRINCIPAL COMPETING COUNTRIES

The position of the United States as the dominant factor in the world's implement markets was not seriously affected during 1926. The French implement industry continued quite active during the year, but owing to a largely increased demand for implements, this did not unfavorably affect even the imports of American implements in France. The French production did not play a particularly important part in the export markets. The German industry benefited from a greatly increased domestic demand in 1926 and also increased its exports so that they were nearly twice as large as in 1913. Russia was the largest purchaser of German implements and Italy was second, while the balance went chiefly to other European countries, Argentina, and British South Africa. Production in other central European countries showed no marked improvement, and the British industry has not yet recovered from the depression from which it has been suffering since the war. Canada continues to be an important factor in some export markets. Attempts are being made to stimulate the production of implements in Australia, which may have a considerable effect on the imports of implements from the United States.

AUTOMOTIVE PRODUCTS

SUMMARY.—The year 1926 started very auspiciously, and during the first five months production far exceeded the corresponding period of the previous record year 1925. Model changes by many of the important producers and depression in some of the agricultural districts slowed down buying in the second half of the year. In spite of these factors, the total 1926 production of 4,464,743 passenger cars, busses, and trucks represented an increase of 3 per cent over that of the preceding year. Exports of automobiles held up well throughout the year, as the total value of all automotive products exported from the United States and Canada in 1926 (in spite of many price reductions) was approximately $376,000,000, a slight increase over those of the previous year. Exports of cars, trucks, and busses (complete or chassis, excluding foreign assemblies declared as parts) from the United States and Canada was 379,580 cars as compared with 377,082 in 1925. Foreign assemblies made in American branches abroad from "parts for assembly" consisted of nearly 100,000 cars in 1926. The percentage of exports to total production remained fairly constant, trucks and busses registering a slight increase and passenger cars a slight decrease. Other features of the year were the establishment of several new American assembly plants abroad, the introduction of many new models, a one-third increase in exports of aircraft products, the continued increase of closed-car production, and a very slight decrease in motor-cycle exports.

Tax paid registrations in the United States during 1926 reached a total of 22,000,000, an increase of 10.3 per cent over the 1925 total. When the total exports and the increase of registrations are subtracted from the total production it appears that 1,800,000 automobiles were scrapped or otherwise retired from service during 1926.

Table 1.—Summary of Registration, Production, and Exports of Passenger Cars and Trucks and Busses

[In thousands]

Item	1914	1921	1922	1923	1924	1925	1926	Per cent increase, 1926 from 1925
United States registration	1,711	10,463	12,238	15,092	17,594	19,937	22,001	10.3
Production in United States and Canada	569	1,662	2,639	4,095	3,640	4,334	4,465	3.0
Passenger cars	544	1,514	2,385	3,702	3,263	3,836	3,930	2.2
Motor trucks and busses	25	148	254	392	377	498	535	7.4
Exports from United States:								
Passenger cars and motor trucks and busses	26	38	78	152	179	303	305	.7
Value of same	$28,507	$42,870	$59,321	$106,009	$131,734	$222,589	$223,561	.4
Value of parts	$5,664	$39,059	$38,298	$58,975	$73,761	$80,311	$83,928	4.5

PASSENGER CARS AND MOTOR TRUCKS

REGISTRATION AND PRODUCTION

Registrations.

The number of passenger cars, trucks, and busses registered in the United States on December 31, 1926, including tax-exempt vehicles used by the various public authorities, was 22,137,000, an increase of 10 per cent over those of the preceding year and more than double the number in use only five years ago. The latest revised survey made by the Automotive Division, Bureau of Foreign and Domestic Commerce, showed that the United States had more than 79 per cent of the total number of the motor vehicles of the world. By classes the United States registrations (shown in Table 2) were as follows: Passenger cars, taxis, and busses, 19,237,000; trucks and other commercial motor vehicles, 2,764,000. There were in the United States also approximately 132,000 motor cycles, excluding those in the service of the various public authorities which are not included in the registration figures.

Table 2.—Motor-Vehicle Registration in the United States

[In thousands]

Year	Grand total	Passenger cars, taxis, and busses [1]	Trucks and commercial cars [2]	Motor cycles
1906	48	(3)	(3)	(3)
1910	523	(3)	(3)	(3)
1915	2,645	2,373	73	199
1916	3,764	3,394	119	251
1917	5,241	4,792	191	258
1918	6,387	5,853	294	241
1919	7,807	7,144	422	241
1920	9,471	8,380	852	239
1921	10,660	9,483	980	196
1922	12,421	10,960	1,279	183
1923	15,264	13,540	1,553	171
1924	[4] 17,748	15,461	[4] 2,133	154
1925	[4] 20,078	17,496	[4] 2,441	140
1926	[4] 22,133	19,237	[4] 2,764	132
Per cent change from 1925	+10.1	+9.8	+13.2	−5.7

[1] Classified as "automobiles" prior to 1921.

[2] Figures incomplete owing to classification, by some States, of trucks and commercial cars with other motor vehicles.

[3] Separate figures not available.

[4] Figures include road tractors, not previously reported.

Source: Bureau of Public Roads, Department of Agriculture.

Census Statistics of the Industry.

The automotive industry stands first among the manufacturing industries in value of products. The value of completed motor vehicles alone, exclusive of parts, bodies, and accessories not sold as part of the completed vehicles, was $3,198,123,000, according to the biennial census of 1925. (Table 3.) About 275,000 more cars were turned out by 297 establishments employing 197,728 wage earners in 1925 than by 351 establishments employing 241,356 wage earners in 1923. This greatly increased output per individual worker is partly explained by an increase of 64,852 wage earners and of $510,168,000 in the value of production of the motor vehicle body and parts industry. However, since the total increase in the combined industries was only 21,224 wage earners, or approximately 5 per cent, while the combined value of products was increased by nearly 11 per cent, a steadily increasing labor efficiency may be assumed. This is borne out by the fact that the primary horsepower per wage earner in the motor vehicle industry increased approximately 44 per cent in these two years. It is also noteworthy that, while the average number of wage earners employed in the combined industries increased only about 5 per cent in the two years, the total wages paid increased approximately 8 per cent during the same period.

The average unit value at factory of the passenger cars made in 1914 was $762, while in 1923 the average had fallen to $655, owing to progressive price reductions. The average rose to $692 in 1925, owing to the far greater proportion of sales of closed cars than in 1923.

Table 3.—Census Statistics of Motor Vehicles and Motor-Vehicle Bodies and Parts Industries

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture	Number of motor vehicles made
				Thousands of dollars				
THE TWO BRANCHES								
1904	178	12, 049	9, 966	7, 159	13, 151	30, 034	16, 882	----------
1909	743	75, 721	74, 253	48, 694	131, 646	249, 202	117, 556	----------
1914	1, 271	127, 092	172, 875	101, 927	356, 208	632, 831	276, 624	----------
1919	2, 830	343, 115	539, 093	491, 121	1, 940, 679	3, 080, 074	1, 139, 395	----------
1921	2, 359	212, 777	(1)	318, 753	1, 321, 027	2, 079, 404	758, 377	----------
1923	2, 471	404, 886	860, 633	659, 877	2, 711, 571	4, 176, 440	1, 464, 870	----------
1925	1, 655	426, 110	1, 172, 013	713, 931	2, 970, 913	4, 721, 403	1, 750, 489	----------
MOTOR VEHICLES								
1899	57	2, 241	2, 979	1, 321	1, 804	4, 748	2, 944	(1)
1904	121	10, 239	7, 517	6, 179	11, 658	26, 645	14, 987	(1)
1909	265	51, 294	49, 772	33, 180	107, 731	193, 823	86, 092	126, 593
1914	300	79, 307	104, 963	66, 934	292, 598	503, 230	210, 633	568, 781
1919	315	210, 559	282, 323	312, 166	1, 578, 652	2, 387, 903	809, 252	1, 871, 264
1921	385	143, 658	(1)	221, 974	1, 107, 062	1, 671, 387	564, 325	1, 591, 839
1923	351	241, 356	435, 545	406, 730	2, 147, 463	3, 163, 328	1, 015, 865	3, 890, 250
1925	297	197, 728	509, 758	341, 210	2, 108, 192	3, 198, 123	1, 089, 931	4, 165, 074
MOTOR-VEHICLE BODIES AND PARTS								
1904	57	1, 810	2, 449	980	1, 493	3, 388	1, 895	----------
1909	478	24, 427	24, 481	15, 513	23, 914	55, 379	31, 465	----------
1914	971	47, 785	67, 912	34, 993	63, 610	129, 601	65, 991	----------
1919	2, 515	132, 556	256, 770	178, 956	362, 027	692, 171	330, 143	----------
1921	1, 974	69, 119	(1)	96, 779	213, 965	408, 017	194, 052	----------
1923	2, 120	163, 530	425, 088	253, 147	564, 107	1, 013, 112	449, 005	----------
1925	1, 358	228, 382	662, 255	372, 721	862, 721	1, 523, 280	660, 558	----------

[1] Not called for in schedule.

Source: Bureau of the Census.

Detailed census statistics of the motor-vehicle industry in the years 1923 and 1925 are given in Table 4. These do not include the output of the "bodies and parts" industry, which is notable for the decrease in open-body production and the corresponding increase in production of closed cars and chassis. It is estimated that 60 per cent of retail sales in 1925 consisted of closed cars, and the following information furnished by Automotive Industries indicates that the proportion of closed cars to the total continues to increase: "Roadster production during 1926 was 338,500, or 8.6 per cent of the total; touring-car production was 683,300, or 17.4 per cent of the total; closed-car production making up the remainder of 2,907,700, or 74 per cent of the total."

Table 4.—Products of the United States Motor-Vehicle Industry

Class	Number		Value (thousands of dollars)		Per cent increase[1]	
	1923	1925	1923	1925	Number	Value
Aggregate value			**3, 163, 749**	**3, 198, 852**		**1. 1**
Total motor vehicles	**3, 890, 250**	**4, 165, 074**	**2, 611, 735**	**2, 946, 821**	**7. 1**	**12. 8**
Passenger vehicles	3, 472, 686	3, 653, 725	2, 278, 231	2, 523, 805	5. 2	10. 8
Open, touring	1, 782, 992	1, 095, 186	962, 097	516, 206	−38. 6	−46. 3
Open roadsters and runabouts	432, 152	390, 062	221, 899	180, 845	−9. 7	−18. 5
Closed	1, 201, 577	2, 080, 697	1, 066, 838	1, 786, 834	73. 2	67. 5
Chassis	53, 256	87, 780	25, 121	39, 919	64. 8	58. 9
All other	2, 709		2, 276			
Public conveyances (busses, cabs, etc.)	12, 878	15, 295	24, 667	43, 690	18. 8	77. 1
Government and municipal special vehicles	1, 192	1, 233	10, 052	10, 486	3. 4	4. 3
Business vehicles	403, 494	494, 821	298, 785	368, 840	22. 6	23. 4
Delivery wagons	28, 042	35, 976	17, 139	24, 080	28. 3	40. 5
Trucks	252, 563	303, 824	202, 723	257, 804	20. 3	27. 2
Hearses	872	2, 011	2, 557	5, 359	130. 6	109. 6
Chassis	122, 017	153, 010	76, 365	81, 597	25. 4	6. 9
All other products, including bodies and parts			552, 014	252, 031		54. 3

[1] A minus sign denotes decrease.

Source: Bureau of the Census.

Production—United States and Canada.

The combined production of the United States and Canada (Chart I) totaled, in 1926, 4,464,743 units, an increase of 3 per cent over the preceding year. The United States produced 3,765,059 passenger cars and 535,197 trucks and busses, or approximately 95.5 per cent of the total. Of the 1925 production of 4,334,271, the United States made 96.3 per cent. The ratio of passenger car to truck and bus production has fallen steadily since 1921. It was approximately 10 to 1 for the years 1921, 1922, and 1923, fell to 9 to 1 in 1924, was slightly less than 8 to 1 in 1925, and in 1926 was approximately 7 to 1. This is traceable in part to the increased use of the motor bus at home and abroad and in part to the increased importance of the truck in the export trade.

Table 5 shows the production and exports of motor vehicles from the United States and Canada, and indicates that an increasing proportion of the total production of both countries is being exported.

Chart I.—PRODUCTION OF PASSENGER CARS, TRUCKS AND BUSSES, UNITED STATES AND CANADA

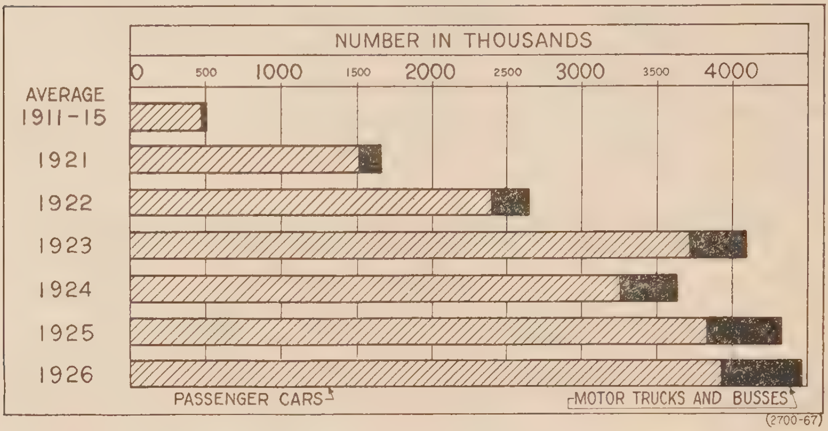


Table 5.—Production and Exports of Motor Vehicles, United States and Canada

NOTE.—Figures include chassis as well as complete vehicles. There were in 1923, 1924, 1925, and 1926, foreign assemblies of American cars amounting to approximately 106,110, 131,745, 139,391, and, 99,348, respectively, which were exported as "parts" from the United States and Canada and are not included in the production or export figures. These oversea assemblies of American cars if added both to the production and to the export figures below would materially increase the percentage of production exported.

Year	Production							Exports, cars, trucks and busses, except electric		
	Total [1]			Passenger cars		Trucks and busses		Total	United States	Canada
	Both countries	United States	Canada	Both countries	United States	Both countries	United States			
1910	187, 000	(2)	(2)	181, 000	(2)	6, 000	(2)	8, 902	8, 443	459
1913	485, 000	(2)	(2)	461, 500	(2)	23, 500	(2)	32, 886	26, 889	5, 997
1914	[3] 573, 039	(2)	(2)	543, 679	(2)	25, 375	(2)	31, 386	25, 765	5, 621
1915	892, 618	(2)	(2)	818, 618	(2)	74, 000	(2)	77, 433	63, 958	13, 475
1916	1, 617, 708	(2)	(2)	1, 525, 578	(2)	92, 130	(2)	93, 422	80, 843	12, 579
1917	1, 868, 949	(2)	(2)	1, 740, 792	(2)	128, 157	(2)	89, 727	80, 235	9, 492
1918	1, 153, 638	(2)	(2)	926, 388	(2)	227, 250	(2)	57, 605	47, 244	10, 361
1919	1, 974, 016	1, 886, 181	87, 835	1, 657, 652	1, 577, 716	316, 364	308, 465	105, 679	82, 730	22, 949
1920	2, 205, 197	2, 111, 053	94, 144	1, 883, 158	1, 799, 522	322, 039	311, 531	194, 656	171, 644	23, 012
1921	1, 661, 550	1, 595, 304	66, 246	1, 514, 000	1, 452, 902	147, 550	142, 402	49, 156	38, 430	10, 726
1922	2, 649, 261	2, 547, 208	102, 053	2, 397, 827	2, 302, 923	251, 434	244, 285	116, 192	78, 234	37, 958
1923	4, 097, 452	3, 951, 014	146, 438	3, 719, 164	3, 589, 936	378, 288	361, 078	221, 814	151, 894	69, 920
1924	3, 640, 870	3, 505, 624	135, 246	3, 262, 764	3, 144, 999	378, 107	360, 625	235, 387	178, 732	56, 655
1925	4, 334, 271	4, 172, 886	161, 385	3, 835, 801	3, 696, 490	498, 470	476, 396	377, 082	302, 931	74, 151
1926	4, 464, 743	4, 259, 627	205, 116	3, 929, 546	3, 765, 059	535, 197	494, 568	379, 580	305, 256	74, 324

[1] Total production of automobiles (approximate) for 1896 was 25; 1900, 5,000; 1905, 25,000. Separate figures for classes are not available.

[2] Prior to 1919 production figures for the United States and Canada were not reported separately.

[3] Figure includes production not distributed by classes.

Sources: National Automobile Chamber of Commerce; Canadian Monthly Trade Returns; War Trade Board; Bureau of the Census and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Monthly production statistics shown in Chart II and Table 6 are affected by seasonal variations and model changes as well as by changes in general business conditions. The diversity in seasonal demand in foreign markets has a small though increasing tendency toward evening up the monthly distribution of production. The popularity of the closed car has done much toward wiping out the winter slump in sales, though in 1926 this was almost negated by the number of model changes in the latter part of the year, which reduced production. April was the leading month in 1926 for passenger car production, followed by March, May, and August in the order named. August had the greatest number of model changes in 1925, while the largest number of charges in 1926 occurred in December. Consequently, December production was the smallest of any month in 1926. Truck production was largest in April, May, and September. Substantial increases in production over the corresponding months of 1925 characterized the first six months of 1926, and also the month of August.

Table 6.—Production of Motor Vehicles in United States and Canada

Month	Passenger cars					Motor trucks and busses				
	1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
Total	2, 397, 827	3, 719, 164	3, 262, 764	3, 835, 801	3, 929, 546	251, 434	378, 288	378, 107	498, 470	535, 197
January	84, 823	229, 226	293, 824	213, 851	284, 703	9, 597	20, 534	30, 785	28, 203	33, 517
February	111, 843	260, 881	343, 460	253, 955	334, 524	13, 455	23, 143	32, 974	34, 482	41, 784
March	162, 203	332, 157	357, 045	334, 214	399, 105	20, 079	35, 016	36, 506	45, 180	49, 386
April	208, 543	349, 474	346, 405	393, 262	401, 836	22, 613	38, 640	38, 037	47, 984	54, 135
May	244, 634	360, 743	286, 324	384, 548	394, 569	24, 293	44, 125	35, 408	43, 719	1, 568
June	263, 127	346, 059	225, 079	366, 510	358, 388	27, 030	40, 639	29, 135	38, 151	47, 265
July	230, 554	305, 795	244, 544	360, 124	329, 959	22, 636	30, 139	26, 448	41, 870	41, 873
August	253, 133	320, 700	255, 232	223, 517	393, 064	25, 044	30, 335	28, 714	37, 850	47, 836
September	191, 156	304, 087	263, 528	274, 227	363, 547	20, 258	28, 160	32, 015	60, 482	51, 257
October	217, 032	338, 664	260, 881	408, 017	300, 160	22, 683	30, 238	32, 533	46, 013	46, 985
November	218, 100	289, 553	204, 343	337, 435	226, 278	22, 813	28, 639	27, 956	40, 048	39, 430
December	212, 679	281, 825	182, 099	286, 141	143, 413	20, 933	28, 680	27, 596	34, 488	30, 161

Source: Bureau of the Census.

Production by Price Groups.

The production of passenger cars in the United States and Canada priced under $1,000 in 1926, reached 77 per cent of the total, as contrasted with 73 per cent in both 1925 and 1924, and 59 per cent in 1919. Only in 1923 did the production in this class, 82 per cent of the total, exceed that of 1926. Production in the other price groups remained practically stationary or actually declined. There was a particularly large decline both in the actual number of cars produced in the $1,000 to $2,000 group and in their ratio to total production in 1926.

Figures in Tables 7, 8, and 9 are in some cases obtained from trade authorities and in others are based upon production figures obtained by the Bureau of the Census. They will, therefore, in some cases vary slightly from those in other tables, but the discrepancies are small.

Chart II.—PRODUCTION OF PASSENGER CARS, TRUCKS AND BUSSES, UNITED STATES AND CANADA, BY MONTHS

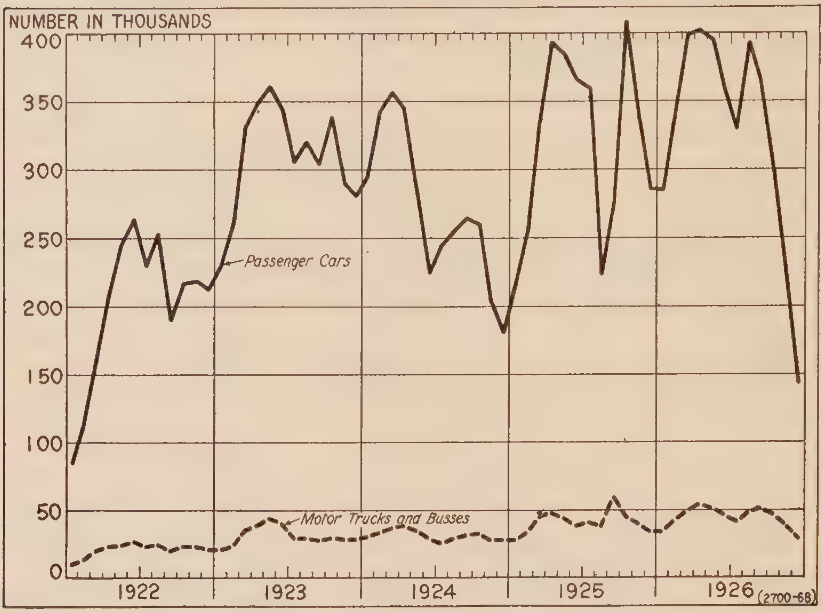


Table 7.—Passenger-Car Production, by Price Groups, United States and Canada

Year	Under $1,000		$1,000 to $2,000		$2,000 to $3,000		$3,000 and over	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1913	289, 400	62. 7	131, 500	28. 5	23, 100	5. 0	17, 500	3. 8
1919	976, 400	58. 9	578, 500	34. 9	69, 600	4. 2	33, 200	2. 0
1920	1, 118, 600	59. 4	619, 600	32. 9	81, 000	4. 3	64, 000	3. 4
1921	1, 044, 700	69. 0	352, 800	23. 3	81, 700	5. 4	34, 800	2. 3
1922	1, 774, 400	74. 0	522, 700	21. 8	59, 900	2. 5	40, 800	1. 7
1923	3, 034, 900	81. 6	609, 900	16. 4	44, 600	1. 2	29, 800	. 8
1924	2, 391, 900	73. 3	786, 100	24. 1	42, 400	1. 3	42, 400	1. 3
1925	2, 808, 500	73. 2	896, 000	23. 4	71, 000	1. 8	60, 300	1. 6
1926	3, 025, 700	77. 0	770, 200	19. 6	62, 900	1. 6	70, 700	1. 8

Source: Automotive Industries. The grouping is based on retail prices f. o. b. factory.

The increasing preference for closed bodies was again evident in 1926, when the total United States and Canadian output of closed cars was approximately 3,000,000 vehicles, or 72 per cent of the passenger-car production. In the years prior to 1925 there were many more open cars than closed produced in the class selling below $1,000. During that year, however, the situation was reversed, and additional gains in closed-car production in this class were manifested in 1926. The spread in price between the open and closed car has changed so greatly that in some cases makers are offering closed models at prices the same or less than those of open models.

Table 8.—Production of Open and Closed Cars by Price Groups in United States and Canada [1]

Year	Under $1,000		$1,000 to $2,000		$2,000 to $3,000		$3,000 and over		Per cent closed, all classes
	Open	Closed	Open	Closed	Open	Closed	Open	Closed	
1919	888, 500	87, 900	532, 200	46, 300	52, 900	16, 700	23, 100	10, 100	9. 7
1920	904, 900	213, 700	545, 300	74, 300	63, 200	17, 800	49, 700	14, 300	17. 0
1921	820, 100	224, 600	287, 800	65, 000	51, 600	30, 100	19, 500	15, 300	22. 1
1922	1, 343, 000	431, 400	315, 400	207, 300	11, 700	48, 200	8, 700	32, 100	30. 0
1923	2, 052, 800	982, 100	391, 800	218, 100	7, 700	36, 900	2, 900	26, 900	34. 0
1924	1, 622, 800	769, 100	223, 900	562, 200	9, 400	33, 000	3, 700	38, 700	43. 0
1925	1, 409, 100	1, 399, 400	234, 600	661, 400	14, 200	56, 800	10, 600	49, 700	56. 5
1926	967, 500	2, 058, 200	119, 100	651, 100	9, 900	53, 000	17, 700	53, 000	71. 6
Per cent open or closed to class:									
1919	91. 0	9. 0	92. 0	8. 0	76. 0	24. 0	69. 6	30. 4	--------
1926	32. 0	68. 0	15. 5	84. 5	15. 7	84. 3	25. 0	75. 0	--------

[1] Prior to 1922 figures are based only on price of five-passenger open cars of a given chassis. Thus, if this model sold for less than $1,000, the total production of cars with same chassis is included in the "under $1,000" class, even though closed models sold for over $1,000. In 1922 and later dates actual f. o. b. price of open and closed models are considered separately and included under proper classification.

Source: Automotive Industries. The grouping is based on retail prices f. o. b. factory.

Truck and bus production in 1926 almost reached the half-million mark, showing an increase of approximately 18,000 units over the previous record year of 1925, which had had an increase of more than 123,000 over the year 1924. The largest increases were in the ¾-ton or less, the 1½-ton, and the 2-ton classes. It is not possible to separate trucks and busses in production statistics, as manufacturers do not know for what purposes their truck chassis are to be used; this applies also to many light passenger-car chassis on which commercial or bus bodies are eventually mounted.

Table 9.—Motor-Truck and Bus Production, by Capacity, United States and Canada

Capacity	Number							Per cent of total		
	1920 [1]	1921	1922	1923	1924	1925	1926	1920 [1]	1925	1926
Total	321, 789	146, 082	249, 228	385, 755	363, 530	473, 154	491, 353	100. 0	100. 0	100. 0
¾ ton or less	61, 187	33, 809	62, 194	44, 198	40, 324	47, 135	64, 141	19. 0	10. 0	13. 1
1 ton	164, 240	79, 844	147, 114	274, 559	265, 756	342, 774	317, 900	51. 0	72. 5	64. 6
1½ tons	35, 174	5, 608	4, 388	24, 031	20, 193	29, 029	46, 658	11. 0	6. 1	9. 5
2 tons	25, 763	11, 206	13, 830	14, 998	8, 118	12, 298	23, 174	8. 0	2. 6	4. 7
2½ tons	12, 871	3, 958	11, 235	12, 516	14, 105	16, 478	15, 758	4. 0	3. 5	3. 2
3½ tons	12, 893	3, 343	3, 319	6, 761	3, 526	5, 958	6, 711	4. 0	1. 2	1. 4
5 tons	6, 441	4, 714	5, 718	4, 611	6, 548	7, 887	6, 834	2. 0	1. 7	1. 4
Over 5 tons and special [2]	3, 220	3, 600	1, 430	4, 081	4, 960	[3] 11, 595	[3] 10, 177	1. 0	[3] 2. 4	[3] 2. 1

[1] Figures are for the United States only.
[2] Figures include ambulances, hearses, fire apparatus, busses, etc.
[3] Figures include units not previously segregated.

Source: National Automobile Chamber of Commerce. Total figures do not agree exactly with census totals.

Progress in Simplification.

Under the existing arrangement all projects concerned with simplification of metal articles are handled jointly by the Division of Simplified Practice of the Bureau of Standards and the National Committee on Metals Utilization. A committee appointed at a conference of manufacturers of ball bearings during 1926 selected preferred lists of annular ball bearings and offered them as guides to the industry. Several manufacturers are conforming to these preferred lists, as is evidenced by their current catalogues. The straight roller-bearings industry, cognizant of the simplification trend in ball bearings, is on the verge of eliminating superfluous sizes. Manufacturers of cylindrical roller bearings decided that they would attempt to eliminate the excessive bore sizes up to 6 inches. Simplified practice committees of the tapered roller-bearing, spark-plug, brake-lining, and piston-ring manufacturers, working in conjunction with the Society of Automotive Engineers, proposed simplified lists and specifications to the Committee on Metals Utilization late in 1926.

The automotive industry is helping other industries to simplify their practices and is giving splendid support to the following simplified practice recommendations, S. P. R. 36, milling cutters; S. P. R. 45, grinding wheels; S. P. R. 51, die head chasers; and S. P. R. 56, carbon brushes and shunts. Other automotive projects are in the course of organization, including standardization of automobile bumpers. The automotive industry appreciates the fact that reduced production costs depend upon simplification and standardization, and that is one of the main reasons that the automobile is one of the few important manufactured commodities that can be bought to-day at less than pre-war prices.

PRICE MOVEMENT AND MARKET CONDITIONS

The problem of retail sales outlets for production in 1926 resolved itself into that of disposing of used cars at a valuation that makes it economically possible for present car owners to buy new cars. Considering the glutted condition of the used-car market, the total of new-car sales achieved in 1926 is very encouraging. Everyone in the industry from factory heads to retail salesmen is giving the used-car problem their constant attention, and it is significant that some of the largest producers are urging their dealers not to sacrifice new-car profits in making allowances on used cars, and are no longer forcing their dealers to take a fixed quota of cars. The practice of more thoroughly covering sales territories by use of an increased number of agencies and subagencies was resorted to by many makers in 1926, thus increasing retail competition from that angle. Better adjustment of production to retail sales was achieved in 1926, considering sales resistance, than in any previous year. Another feature of the year was the apparent desire on the part of the makers to spread changes and improvements throughout the year, or to restrict them to the winter months instead of making them in the middle of the year which retarded production during the best selling season.

The time-payment plan still remains the basis of most retail sales. It is estimated that three purchasers out of four take advantage of some form of credit in buying new and used cars. Some difficulty has been experienced by dealers and finance companies owing to repossessions, but this has been largely in cases where the so-called "standard terms" of one-third down and the balance payable in frequent installments over a period of one year were not adhered to. Repossessions have also been more prevalent in used-car sales, and particularly in the case of so-called "without recourse" terms, which do not protect the finance company by the indorsement of the dealer. Experience has shown that, where standard terms are used for new cars or fairly priced used cars, even repossessions need not result in a loss.

Owing to the constant changes and improvements in models, changes of price are no criterion of the values offered in automobiles. The combined effect of high purchasing power and constant improvements in low-priced passenger cars, together with the time purchase plan has done much to make the used-car situation what it is; for example, up to $1,000, the first cost is practically no deterrent to the person able to maintain an automobile and seeking to buy one. These factors have raised the average retail selling price of passenger cars at factory to $927 in 1926 as compared with $866 in 1925, $824 in 1924, $811 in 1923, $770 in 1922, and $900 in 1920 and 1921, according to figures furnished by the National Automobile Chamber of Commerce. The average unit value of trucks in 1926 was $1,175 as compared with $1,350 in 1925, $1,129 in 1924, $1,080 in 1923, $1,050 in 1922, and $1,326 in 1921 and 1920.

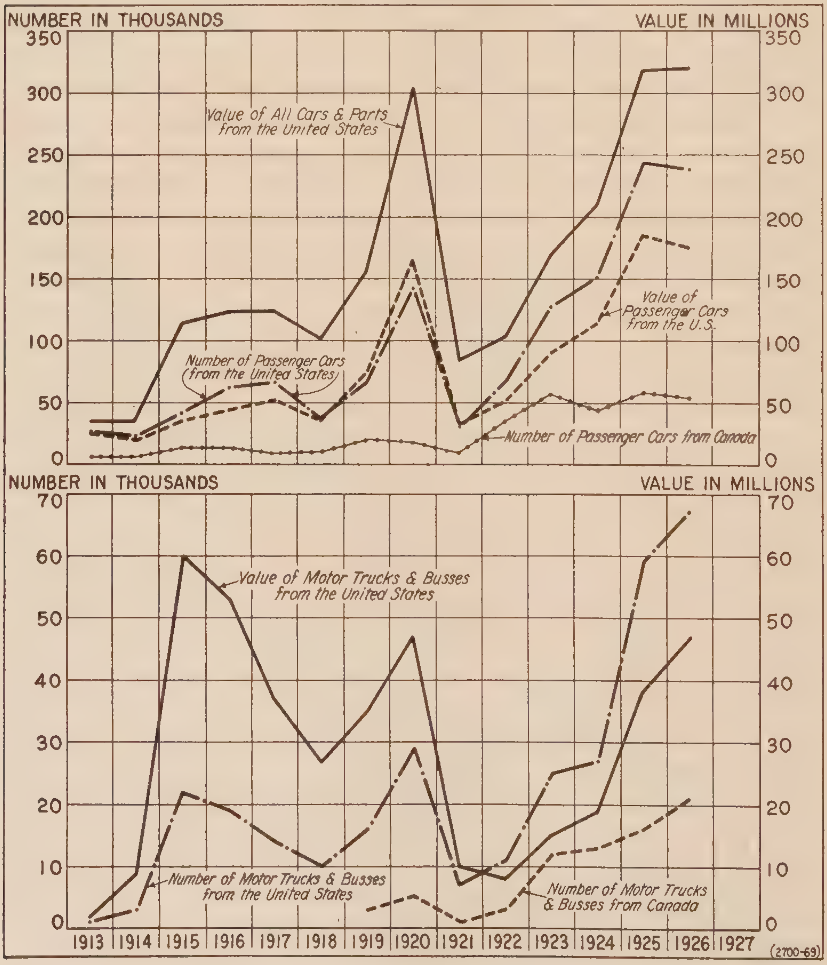
Servicing facilities are steadily improving and labor-saving appliances and practices are increasingly evident. Factories are concentrating on improvements in service offered by their dealers as a sales argument and dealers are endeavoring to put their shops on the most efficient basis possible to conserve profits. These influences are resulting in a much greater efficiency of the service end of the business. Increasing prevalence of the flat rate for making repairs and endeavors to place the service work on a comparable basis of efficiency with manufacturing were the features of 1926. Present service facilities are estimated by the National Automobile Chamber of Commerce to include about 86,000 service stations and shops, 52,000 public garages, and 68,000 supply stores.

FOREIGN TRADE

United States Exports.

The total net invoice value of all automotive exports from the United States during 1926 was $337,447,000. (Chart III.) This figure includes cars, motor cycles, parts and accessories, specially designed automotive servicing appliances, gasoline marine motors, motor boats, aircraft and aircraft products, trailers and electric cars, and trucks. It marked an increase of $2,000,000 over 1925, thus surpassing all previous records for exports.

Chart III.—AUTOMOTIVE EXPORTS, EXCEPT ELECTRIC, FROM THE UNITED STATES AND CANADA



Passenger car, truck and bus (other than electric) exports from the United States numbered 305,256, an increase of less than 1 per cent over 1925. Trucks and busses showed an increase of 8,150 units, so it is apparent that passenger-car exports declined slightly; none of the unit figures referred to here include parts for assembly abroad.

The average unit value of passenger cars exported was $740 in 1926 compared with $756 in 1925; $743 in 1924; $714 in 1923; $764 in 1922; and $1,051 in 1921. The average for trucks and busses in 1926 was $705 compared with an average of $643 in 1925; $702 in 1924; $616 in 1923; $723 in 1922; and $1,382 in 1921. Approximately 78 per cent of the trucks exported in 1926 were of 1 ton or less capacity, while about 69 per cent of the complete passenger cars exported were valued at $800 or less. (Table 11.)

Table 10.—Exports of Automobiles, except Electric, and Parts, from the United States and Canada

[Values in thousands of dollars]

Year	Passenger cars		Motor trucks and busses		Automobile engines		Parts [1]	Total value
	Number	Value	Number	Value	Number	Value	Value	
FROM UNITED STATES								
1913	25, 880	25, 344	1, 009	1, 687	8, 815	1, 630	6, 270	34, 931
1919	67, 145	73, 701	15, 585	35, 425	31, 358	4, 738	42, 562	156, 426
1920	142, 508	165, 256	29, 136	46, 776	30, 581	5, 032	86, 198	303, 262
1921	30, 950	32, 534	7, 480	10, 336	9, 632	1, 821	39, 059	83, 749
1922	66, 791	51, 050	11, 443	8, 271	44, 986	5, 133	38, 298	102, 751
1923	127, 035	90, 692	24, 859	15, 317	40, 868	5, 342	58, 975	170, 326
1924	151, 380	112, 535	27, 352	19, 199	30, 768	4, 188	73, 761	209, 684
1925	244, 306	184, 886	58, 625	37, 703	145, 848	15, 290	80, 311	318, 190
1926	238, 481	176, 481	66, 775	47, 079	118, 428	12, 522	83, 928	320, 011
FROM CANADA [2]								
1913	5, 997	3, 395	(3)	(3)	(4)	(4)	211	3, 606
1922	35, 394	21, 060	2, 564	1, 095	(4)	(4)	1, 926	24, 080
1923	57, 481	29, 325	12, 439	4, 504	(4)	(4)	3, 530	37, 359
1924	43, 883	22, 080	12, 772	4, 429	(4)	(4)	4, 992	31, 501
1925	58, 005	27, 795	16, 146	5, 250	(4)	(4)	6, 373	39, 418
1926	53, 628	25, 780	20, 696	6, 957	(4)	(4)	5, 485	38, 222

[1] Figures for U. S. include automobile accessories which were not shown separately prior to 1924; value for same, $6,821,079 in 1924, $8,611,000 in 1925, and $9,279,096 in 1926.

[2] Values for Canada are in thousands of Canadian dollars.

[3] Trucks not shown separately; figures included under passenger cars.

[4] Engines not shown separately.

Sources: Bureau of Foreign and Domestic Commerce; Trade of Canada, monthly reports.

The aggregate value of Canada's 1926 exports of automotive products was $38,222,000 as compared with $39,418,000 in 1925. The value of the 1926 exports of passenger cars, parts, and accessories declined slightly, while the export value of trucks and busses increased by $1,707,000. Practically all of Canada's exports represented the output of plants controlled by United States capital. The unit value of passenger cars and trucks exported during 1926 was respectively $481 and $336 as compared with a unit value of $479 and $325 during the preceding year.

Listed according to classes the exports of cars, trucks, and busses from the United States are shown in Table 11. Those of Canada are not itemized in this way and, therefore, can not be compared,

Table 11.—Exports of Passenger Cars and Trucks and Busses, Except Electric, from the United States

Value groups and capacity	Number				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Passenger cars	**127,035**	**151,380**	**244,306**	**238,481**	**90,692**	**112,535**	**184,886**	**176,481**
Valued up to $500, inclusive	52,539	59,175	100,230	98,032	18,607	21,486	37,170	38,133
Valued over $500 up to $800	29,697	42,406	60,448	67,182	19,698	29,012	42,919	46,055
Valued over $800 up to $2,000	41,998	46,256	78,413	67,490	44,491	52,083	90,578	76,594
Valued over $800 up to $1,200			59,848	56,273			62,831	59,324
Valued over $1,200 up to $2,000			18,565	11,217			27,747	17,270
Valued over $2,000	2,801	3,543	5,215	5,777	7,796	9,953	14,219	15,698
Motor trucks and busses	**24,859**	**27,352**	**58,625**	**66,775**	**15,317**	**19,199**	**37,703**	**47,079**
Up to 1 ton, inclusive	19,561	20,652	46,503	52,100	7,325	8,408	19,440	24,061
Valued up to $800, inclusive			43,438	49,544			16,164	21,090
Valued over $800			3,065	2,556			3,277	2,971
Over 1 to 2½ tons	4,206	5,209	10,423	12,409	5,233	7,082	13,014	16,001
Over 2½ tons	1,092	1,491	1,699	2,266	2,759	3,709	5,249	7,017

Source: Bureau of Foreign and Domestic Commerce.

Principal Foreign Markets.

The five leading foreign markets for United States passenger cars during 1926 (Table 12), according to the value of reported exports, were Australia, Canada, Argentina, British South Africa, and Brazil. Other countries which have ranked among the first five during one or more of the three preceding years were the United Kingdom and Spain. Shipments to the five leading markets in 1926 amounted to over 54 per cent of the total exports. Noteworthy features are the change of relative position by Canada and the United Kingdom since the imposition of the McKenna duties by the latter in July, 1925.

Among the United States truck and bus markets during 1926, Australia, Canada, United Kingdom, Brazil, and British Africa occupied the first five positions, in the order named, while Mexico, Japan, Argentina, Belgium, and New Zealand have ranked among the leaders in other recent years. The apparently important positions held by Denmark, Italy, and to a lesser degree Belgium, are explained by large shipments of knock-down units for assembly and distribution to nearby countries, and do not accurately portray the consumption in these countries. The takings of the five leading truck and bus markets during 1926 amounted to over 48 per cent of the total number of units exported. Exports of motor trucks and busses to Argentina and Brazil have shown an amazing growth since 1923, and this is also true of our exports to the countries in the northern part of South America, particularly Colombia and Venezuela.

Table 12.—Exports of Passenger Cars, Except Electric, from the United States, by Principal Countries of Destination

NOTE.—Figures include chassis but not Canadian exports or foreign assemblies of American cars.

Country	Number				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total	**127, 035**	**151, 380**	**244, 306**	**238, 481**	**90, 692**	**112, 535**	**184, 886**	**176, 481**
Belgium	4, 931	1, 576	5, 193	6, 542	2, 656	1, 666	4, 318	6, 338
Denmark	1, 796	716	8, 044	10, 132	1, 323	693	4, 138	5, 749
France	312	349	1, 042	799	314	441	1, 378	1, 121
Germany	64	2, 347	3, 623	3, 220	92	2, 724	4, 599	3, 439
Italy	2, 027	2, 600	8, 141	4, 298	655	875	2, 591	1, 469
Netherlands	1, 586	1, 937	2, 430	1, 666	1, 418	2, 151	3, 061	1, 960
Norway	3, 070	504	617	793	1, 561	354	522	753
Spain	6, 330	4, 980	6, 384	5, 056	4, 628	4, 244	6, 309	5, 013
Sweden	6, 744	2, 759	3, 378	3, 609	4, 163	2, 399	3, 318	3, 518
Switzerland	495	991	1, 281	840	478	1, 145	1, 666	1, 173
United Kingdom	7, 582	6, 118	17, 569	5, 826	5, 000	5, 483	16, 218	4, 821
Other Europe	1, 859	2, 170	4, 488	4, 335	1, 241	1, 802	4, 269	3, 883
Canada	11, 012	8, 966	13, 928	25, 397	10, 272	8, 449	12, 667	20, 259
Central America	845	1, 419	1, 778	1, 660	784	1, 311	1, 770	1, 611
Mexico	7, 559	8, 689	12, 560	9, 808	4, 255	4, 940	8, 050	6, 252
Cuba	6, 003	7, 914	8, 035	4, 754	3, 157	4, 196	4, 790	3, 111
Argentina	6, 645	12, 219	31, 489	25, 552	5, 305	9, 286	20, 489	16, 968
Brazil	2, 136	5, 389	13, 974	16, 703	1, 897	4, 099	9, 204	10, 192
Chile	795	2, 095	1, 635	1, 467	620	1, 197	1, 104	1, 080
Colombia	414	680	1, 413	1, 645	317	583	1, 242	1, 598
Peru	647	1, 576	1, 195	1, 071	435	1, 227	977	776
Uruguay	3, 128	4, 322	4, 639	4, 973	1, 499	2, 181	2, 430	2, 476
Venezuela	788	1, 324	2, 346	2, 398	543	943	1, 881	2, 179
Other South America	258	403	351	366	192	338	346	363
British India	1, 998	2, 261	2, 669	2, 530	1, 349	1, 654	2, 281	2, 210
China	817	1, 045	1, 347	1, 724	677	815	1, 097	1, 258
Dutch East Indies	1, 330	1, 271	1, 799	2, 499	1, 130	1, 079	1, 678	2, 206
Japan	3, 734	4, 147	1, 095	1, 642	2, 105	2, 770	1, 144	1, 600
Palestine and Syria	780	987	1, 467	1, 120	444	579	871	684
Philippine Islands	1, 443	2, 255	3, 173	4, 578	1, 114	1, 724	2, 238	3, 108
Australia	25, 817	39, 564	48, 357	48, 960	20, 013	27, 030	34, 336	33, 999
New Zealand	4, 269	4, 065	7, 700	8, 989	3, 745	3, 679	6, 766	7, 372
British South Africa	4, 853	7, 622	11, 990	14, 680	4, 159	6, 444	10, 863	11, 677
Other British Africa	414	695	910	938	295	491	768	794
Egypt	219	309	579	859	133	195	400	596
Other countries	4, 335	5, 116	7, 687	7, 052	2, 721	3, 346	5, 103	4, 878

Source: Bureau of Foreign and Domestic Commerce.

The above rankings are based on the number of units exported to the different countries. If the foreign assemblies of units from parts, not declared as units of complete vehicles in export statistics, were included or if the rankings were based on value the relative importance of some of these markets would differ. Australia, however, leads as the destination for United States exports of automotive products whether the criterion be number or value. Canada ranks second as an exporting market for both passenger cars and trucks from a standpoint of value, although Argentina took a larger number of passenger cars in 1926, and both Brazil and the United Kingdom purchased a substantially larger number of trucks.

Table 13.—Exports of Motor Trucks and Busses, Except Electric, from the United States, by Principal Countries of Destination

NOTE.—Figures include chassis but not Canadian exports or foreign assemblies of American cars.

Country	Number				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total	**24,859**	**27,352**	**58,625**	**66,775**	**15,317**	**19,199**	**37,703**	**47,079**
Belgium	3,959	28	2,269	1,926	956	27	889	756
Denmark	46	35	3,246	3,289	42	49	1,383	1,444
Italy	509	2,513	7,419	2,291	144	638	1,871	594
Norway	586	27	107	179	210	35	136	252
Spain	1,117	638	1,374	2,227	290	269	644	1,180
Sweden	1,765	1,398	271	367	638	519	278	373
United Kingdom	1,146	703	4,320	4,895	772	588	2,518	3,019
Other Europe	627	352	1,525	1,998	217	230	1,279	1,210
Canada	1,358	1,429	1,837	3,043	1,906	1,871	2,692	4,106
Mexico	1,011	1,393	3,586	2,203	661	829	2,041	2,033
British West Indies	320	286	336	364	182	191	217	198
Cuba	811	1,478	2,087	1,909	342	563	1,271	1,394
Argentina	188	608	1,881	2,475	279	982	1,751	2,197
Brazil	27	1,673	4,695	5,886	7	491	1,921	2,701
Chile	567	1,272	1,605	753	343	754	1,378	896
Peru	412	1,116	1,458	1,001	240	816	1,245	837
Uruguay	580	1,247	1,362	1,359	175	400	500	614
Other South America	356	861	1,943	2,747	309	729	1,557	2,984
British India, Malaya (Straits Settlements), and Ceylon	257	585	1,686	1,963	291	607	1,564	1,732
China	188	270	560	890	104	139	406	512
Japan	5,111	3,053	69	167	3,098	1,769	109	292
Philippine Islands	346	717	1,117	1,246	168	368	653	678
Australia	2,046	2,958	7,574	15,150	2,412	3,789	5,954	10,330
New Zealand	446	575	1,396	1,833	669	891	1,498	1,403
British Africa	466	835	2,101	2,855	439	858	2.018	2,477
Other countries	614	1,302	2,801	3,759	422	796	1,930	2,869

Source: Bureau of Foreign and Domestic Commerce.

Imports.

Imports of motor vehicles are very small. During 1926 they numbered only 813 units valued at $1,352,984, of which 299 came from Canada. The total number of vehicles imported in 1925 was 672, and in 1924, 604.

Branches and Assembly Plants in Foreign Countries.

At the close of 1926 there were in operation in foreign countries 19 branches of American automobile companies which were carrying on full assembly operations. During the year the sales from these plants totaled 146,858 units. In only one of these plants was the resultant product built up principally from foreign material; for the other plants the major portion of the parts in finished or semifinished condition were imported from the United States. In 1926 there were assembly plants located in Australia and the Union of South Africa that operated as branches of Canadian companies, with sales amounting to 19,732 units. During the year sales from foreign branch assembly plants controlled by United States and Canadian companies declined about 5 per cent, which probably resulted from the increased competition offered by foreign makes of cars. A new branch assembly plant was established in Mexico while additional plants were put in operation in the Union of South Africa and Australia. Of the 166,590 foreign assembly sales in 1926, approximately 40 per cent were declared as units when the parts for assembly were exported from the United States or Canada and these units were also included in the domestic production totals for the year. Of the 175,344 American type cars assembled and sold abroad during 1925, slightly over 20 per cent were declared on export as units and included in the United States or Canadian production. Comparable foreign assembly sales totals for 1923 and 1924 were 106,110 and 142,346, respectively.

MANUFACTURING CONDITIONS IN OTHER COUNTRIES

During 1926 the United States and Canada produced 4,465,000 passenger cars, trucks, and busses (Table 5), while Europe produced, according to the most reliable reports available, only about 560,000. No complete vehicles were manufactured on any other continent. Features of world production during 1926 were the increasing popularity of six and eight cylinder engines of comparatively high horsepower in Europe, while in America several light cars of the so-called "European type" were produced in larger quantities. European makers are also concentrating on the production of more sturdy designs to compete with American cars in the markets of less developed countries. The mass production methods of the American factories are being extensively imitated in Europe; some of the more successful factories are equipped with American machinery, and in some cases buy much of their special steels and other materials from America. Increasing competition, owing to these practices and much cheaper labor, may therefore be expected by American manufacturers in our export markets, particularly from Great Britain, France, and Italy.

The United States and Canada are the only countries which compile official automobile production records. The best estimates available give the production of passenger cars, trucks, and busses in Europe during 1926 as shown in the following statement:

France	200, 000	Belgium	6, 000
United Kingdom	198, 699	Austria	5, 290
Germany	75, 000	Spain	1, 050
Italy	64, 760	Hungary	388
Czechoslovakia	7, 500	Denmark	100

WORLD MOTOR CAR REGISTRATION

The number of passenger cars, trucks, and busses registered throughout the world as of December 31, 1926, was approximately 27,500,000, of which over 22,000,000 were in the United States. (Table 14.) During the past year the increase in registrations for the United States was 10 per cent as compared with 18 per cent for the rest of the world. While the United States has over 20 times as many cars as any other country, the percentage of increase is much greater outside this country.

There were in 1926 approximately 1,520,000 motor cycles in the world, of which only about 136,000 were registered in the United States.

Table 14.—Number of Cars, Trucks, and Busses Registered, and Number of Inhabitants per Vehicle, for Principal Countries of the World

Country	Number of cars	Inhabitants per car
North America:		
United States (continental)	22, 137, 334	5
Canada	820, 220	11
Cuba	38, 038	89
Mexico	51, 751	275
South America:		
Argentina	222, 610	44
Brazil	81, 100	416
Chile	18, 000	217
Uruguay	30, 060	54
Europe:		
Austria	20, 600	317
Belgium	97, 213	80
Czechoslovakia	27, 100	518
Denmark	80, 750	42
Finland	17, 741	197
France	891, 000	44
Germany	319, 000	196
Irish Free State	35, 647	89
Italy	128, 800	308
Netherlands	69, 094	106
Norway	30, 320	90
Poland	19, 400	1, 468
Europe—Continued.		
Rumania	16, 700	1, 003
Portugal	15, 735	383
Russia (total U. S. S. R.)	20, 162	6, 883
Spain	135, 000	161
Sweden	99, 220	61
Switzerland	51, 560	76
United Kingdom	1, 043, 651	43
Asia:		
British Malaya	26, 868	124
China [1]	18, 529	23, 531
Dutch East Indies	47, 000	1, 050
India	81, 925	3, 015
Japan [2]	45, 600	1, 297
Philippine Islands	22, 325	499
Oceania:		
Australia	374, 717	16
Hawaii	31, 135	10
New Zealand	123, 224	11
Africa:		
Algeria	27, 851	208
Egypt	17, 740	783
Union of South Africa	76, 550	95

[1] China proper.

[2] Japan proper.

Sources: Reports from foreign representatives of the Department of State and Department of Commerce and the Statesman's Yearbook.

MOTOR CYCLES

Motor cycle exports during 1926 numbered 22,670 a slight decline from the total of the previous year. During 1925 exports had increased 35 per cent over the 1924 total. The chief foreign markets during 1926 were Australia which purchased 5,426 American motor cycles; Japan, 2,558; Sweden, 1,711; Germany, 1,697; and New Zealand, 1,474 units.

Despite severe British competition, the exports to Australia increased 16 per cent over those of the preceding year. Exports to Japan increased about one-third and substantial gains were shown also in our exports to Sweden, Germany, Canada, Denmark, Bulgaria, Netherlands, Austria, Venezuela, and Brazil. Exports to Italy were much reduced.

American motor cycles are finding favor in markets where roads are poor, and where greater power is needed than is possessed by the average European machine. They are still much in demand, both at home and abroad for various military, police, and other governmental uses. Increased emphasis is being placed on low-powered and light machines in the export trade. It is noteworthy that over one-half of the American motor cycle production is exported.

Table 15.—Production and Exports of Motor Cycles: United States

Calendar year	Production, number	Exports		Calendar year	Production, number	Exports	
		Number	Value			Number	Value
1913		4,131	$800,061	1920	64,000	37,622	$10,756,580
1914	[1] 62,154	6,556	1,252,328	1921	[1] 26,991	11,001	3,517,769
1915	56,000	14,846	2,823,792	1922	28,000	15,976	4,028,742
1916	54,000	16,656	3,189,386	1923	[1] 41,898	22,112	5,298,597
1917	53,000	14,320	3,035,032	1924	36,000	16,859	4,006,408
1918	52,000	9,212	2,169,385	1925	[1] 39,350	22,845	5,079,939
1919	[1] 59,122	24,481	6,687,436	1926	42,000	22,670	4,915,949

[1] Figures from Bureau of the Census.

Sources: Production figures from Bureau of the Census, the Motor Cycle and Allied Trades Association; export figures from Bureau of Foreign and Domestic Commerce.

AIRCRAFT

The preliminary figures covering aircraft production during 1926 indicate a substantial increase over 1925. There were produced during 1926, according to a special survey by the Bureau of the Census, 1,253 planes, including both land and water types, as compared with 789 in 1925; 587 in 1923, and 302 in 1921. The year was characterized by the large increase in number of purely commercial designs offered for sale, the unmistakable trend toward air-cooled engines for aircraft power plants, and the encouragement given the manufacturing industry by the adoption of a five-year building program by the War and Navy Departments.

During 1926 the value of United States exports of aircraft engines, aircraft, and aircraft parts increased almost one-third over 1925. The growth of our export trade in aircraft products in the postwar years is shown in Table 16. The greater part of the increase as compared to 1925 was in aircraft engines which were four times as large in number and nearly three and one-half times as large in value. The United Kingdom was our leading market for aircraft products in 1926, followed by Russia, Peru, Mexico, and Canada, in the order named.

Table 16.—Exports of Aircraft Products From the United States

Calendar year	Airplanes, seaplanes, and other aircraft [1]		Parts, except engines and tires		Aircraft engines		Total value
	Number	Value	Pounds	Value	Number	Value	
1913	19	$61,325	(2)	$25,606	(3)	(3)	$86,931
1918	48	607,255	(2)	14,670,269	(3)	(3)	15,277,524
1919	44	215,300	(2)	3,249,226	(3)	(3)	3,464,526
1920	65	598,274	(2)	554,375	(3)	(3)	1,152,649
1921	48	314,940	(2)	157,608	(3)	(3)	472,548
1922	37	156,630	471,495	265,481	147	$72,819	494,930
1923	48	309,051	275,275	58,949	80	65,558	433,558
1924	59	412,738	165,472	165,926	146	219,609	798,273
1925	80	511,282	95,248	101,584	73	170,793	784,659
1926	50	303,149	(4)	150,329	297	573,732	1,027,210

[1] No aircraft other than airplanes and seaplanes were exported prior to 1923.
[2] Statistics not shown in pounds prior to 1922.
[3] Not separated from other internal-combustion engines prior to 1922.
[4] Not available.

Source: Bureau of Foreign and Domestic Commerce.

A résumé of the provisions of the air commerce act and an account of recent developments in commercial aviation is given under "Civil aeronautics" in the section of this volume entitled "Transportation and communication."

RUBBER AND RUBBER PRODUCTS

SUMMARY.—Crude rubber imports in 1926 set a new high record of 925,878,000 pounds, 4.2 per cent more than in 1925. The value of imports was $505,818,000 as compared to $429,705,000 in 1925. The price of crude rubber at New York which closed at $0.9125 in December 1925, declined during January and February, 1926, to a low of $0.555, but reacted to $0.63 in March, thereafter falling steadily to a level around $0.40 in July, where it has remained with relatively minor fluctuations through March, 1927.

Production of finished goods during 1926 as a whole was at a satisfactory level, but the seasonal decline in sales during the early months was accentuated by the high prices prevailing, and by the effects of conservation, including discontinuance of spring dating terms by tire manufacturers. Owing largely to increased use of reclaimed rubber as a substitute, crude rubber consumption declined from 388,000 tons in 1925 to 366,000 tons in 1926. Prices of finished goods held a downward course throughout the year, reflecting the decline in price of rubber, and, owing to the heavy commitments of manufacturers for high-priced rubber under forward contracts, profits were generally low.

A new high record was set in the value of exports of rubber products in 1926, which reached $60,051,000; an increase of 14.1 per cent over 1925. Table 1 gives summary statistics for the rubber industry.

Table 1.—Rubber: Summary Table

Item	1914	1921	1922	1923	1924	1925	1926	Per cent change 1926 from 1925
Imports of crude rubber:								
Thousands of pounds	143,065	415,283	674,410	692,483	734,845	888,478	925,878	+4.2
Thousands of dollars	70,473	73,773	101,843	185,060	174,231	429,705	505,818	+17.7
Average per pound	$0.4926	$0.178	$0.151	$0.267	$0.237	$0.484	$0.546	+12.8
Consumption of crude rubber, thousands of pounds:[1]								
For tires and tire sundries	(2)	280,265	464,137	494,932	563,723	665,249	630,909	−5.2
For other rubber products	(2)	65,335	105,239	120,969	112,260	127,427	107,713	−15.5
Value of products, thousands of dollars:[1]								
Tires and tire sundries	[3] 146,422	506,461	532,192	558,463	598,416	803,659	866,795	+7.9
Other products	[3] 154,572	213,286	262,892	324,957	294,304	338,437	339,227	+.2
Production, thousands:[1]								
Automobile casings	[3] 8,021	21,857	30,874	34,116	38,804	45,729	46,177	+1.0
Automobile tubes	[3] 7,907	27,127	38,267	45,219	53,094	62,047	57,514	−7.3
Rubber products exported, thousands of dollars	12,183	30,786	34,009	36,972	40,622	52,630	60,051	+14.1

[1] Statistics of the Rubber Association of America, which do not include the entire industry.
[2] Not available.
[3] Bureau of the Census.

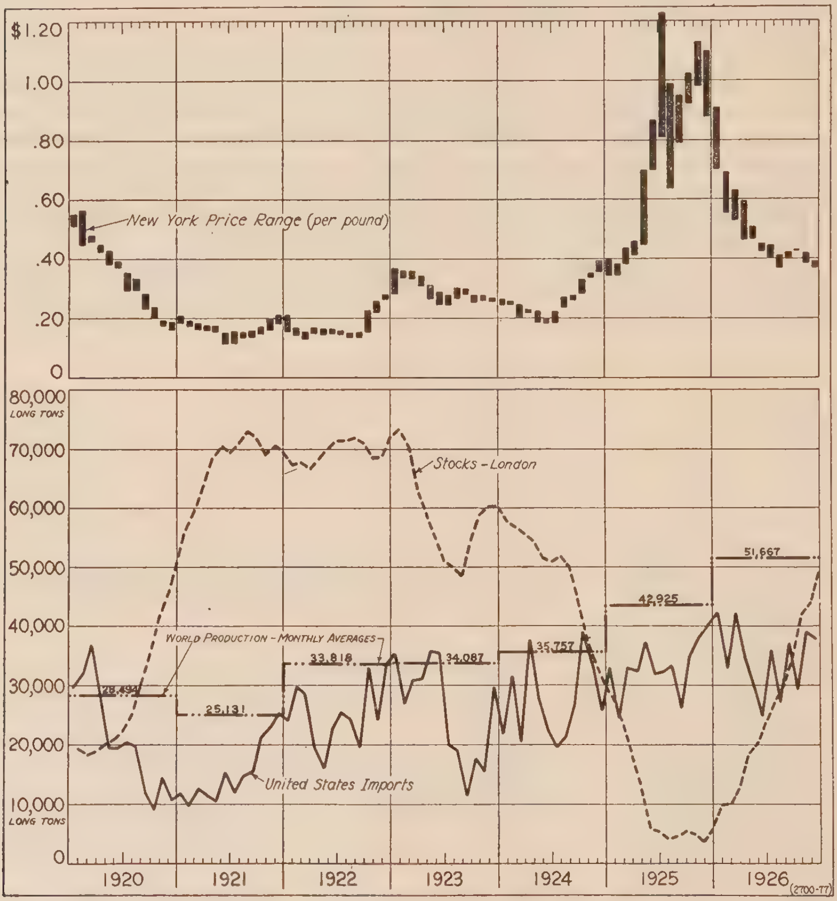
CRUDE RUBBER

Imports of Crude Rubber.

American industry is entirely dependent on imports for its crude rubber supply. The development of our rubber industry is admirably reflected in the growth of our imports since 1870, shown in Table 2.

The advent of the pneumatic bicycle tire was the chief cause of growing demand for rubber from 1890 to 1905, while from 1906 to 1925 the growth has resulted mainly from constantly increasing consumption of rubber in automobile tires. The percentage increase in imports over five-year periods has been very rapid and well maintained.

Chart I.—CRUDE RUBBER: WORLD PRODUCTION, IMPORTS INTO THE UNITED STATES; LONDON STOCKS AND PRICES



The automobile industry began its rapid expansion in 1910, and for each subsequent year an increasing percentage of the rubber consumed in the United States has been used for tires and tire sundries; from 1917 to 1926 the percentage of rubber used for tires rose from 70 per cent to 85 per cent of the total consumption.

The growth in consumption from 1923 to 1925 was chiefly the natural result of prosperity in America, but changes in types of tires produced from high pressure to low pressure caused an unwonted increase in 1925. In 1926, conservation measures by American manufacturers and consumers, organized in collaboration with the Department of Commerce, were successful in reducing the actual consumption of rubber in America, although increased imports were necessary to reconstitute depleted stocks of raw material. Low pressure tires are proving more durable than was at first expected; and although more rubber is required in their manufacture, a net saving of rubber results from their greater mileage. The gross imports shown in Table 2 include much rubber reexported to Canada.

Table 2.—Imports of Crude Rubber

Calendar year	Quantity (in thousands of pounds)	Value		Calendar year	Quantity (in thousands of pounds)	Value	
		Thousands of dollars	Average per pound			Thousands of dollars	Average per pound
1871–1875	12, 798	5, 375	$0. 420	1913	115, 881	76, 821	$0. 663
1876–1880	14, 614	6, 632	. 454	1914	143, 065	70, 473	. 493
1881–1885	23, 232	12, 636	. 544	1915	221, 482	111, 031	. 501
1886–1890	32, 645	14, 397	. 441	1916	270, 090	159, 745	. 591
1891–1895	38, 329	17, 883	. 467	1917	405, 638	233, 221	. 575
1896–1900	44, 840	25, 217	. 562	1918	325, 959	146, 378	. 449
1901–1905	57, 555	36, 147	. 628	1919	535, 940	215, 820	. 403
1906–1910	79, 391	65, 035	. 819	1920	566, 546	242, 796	. 429
1911–1915	136, 268	86, 460	. 634	1921	415, 283	73, 773	. 178
1916–1920	420, 835	199, 592	. 474	1922	674, 410	101, 843	. 151
1921–1925	681, 100	192, 923	. 283	1923	692, 483	185, 060	. 267
1910	90, 139	98, 007	1. 087	1924	734, 845	174, 231	. 237
1911	82, 852	74, 411	. 898	1925	888, 478	429, 705	. 484
1912	118, 058	99, 567	. 843	1926	925, 878	505, 818	. 546

Source: Bureau of Foreign and Domestic Commerce.

In 1923 crude rubber imports were heavy in the first half of the year but fell off sharply in the last half; in 1924 and 1925 imports were heavier in the last half; and in 1926 the semiannual imports were about equal. Conditions in the trade were abnormal during this period, and it is difficult to deduce a general rule regarding normal monthly trends but a running average of monthly imports over the four years shows that arrivals have been at a relatively high rate from November through May, and that they were lower during June to October, inclusive, the peak months being April and December, and the lowest months September and August.

A period of semidepression in the last half of 1923 and the early part of 1924 was instrumental in bringing the price of rubber to low levels. From the middle of 1924 to the end of 1925 demand for rubber increased tremendously in America. During the first half of 1925 the industry believed that regulations restricting exportation of rubber from British producing areas in the Middle East would be relaxed to prevent runaway prices of rubber as a result of the increasing consumption. Uncompromising adherence to the restriction scheme after stocks became depleted caused wild fluctuations in the price and toward the close of 1925 was reflected in reduced sales of finished goods, a condition which persisted well into 1926.

The average import value per pound (Tables 2 and 3) is the value declared by importers, and represents very closely the cost to the importer, as there is no reason for falsification of returns. This average value represents prices paid on contracts made some weeks or months before arrival of the rubber, so that changes in import value lag behind changes in the market prices of rubber. The import value increased steadily during 1925 from $0.304 for January to $0.720 for December, reached a maximum of $0.798 in February, 1926, and thereafter dropped steadily to the October low of $0.384. For the last half of 1926 the import price averaged under $0.40 per pound.

Table 3.—Monthly Imports of Crude Rubber into the United States

Month	Quantity (thousands of pounds)				Value (thousands of dollars)				Average value per pound			
	1923	1924	1925	1926	1923	1924	1925	1926	1923	1924	1925	1926
Total	**692,483**	**734,845**	**888,478**	**925,878**	**185,060**	**174,231**	**429,705**	**505,818**	**$0.267**	**$0.237**	**$0.484**	**$0.546**
January	79,764	49,419	73,692	94,985	14,311	12,155	22,407	72,528	.179	.246	.304	.764
February	60,379	70,589	55,319	63,618	13,151	17,644	18,532	58,733	.218	.250	.335	.798
March	69,281	46,440	74,082	94,421	19,042	11,640	25,147	70,590	.275	.251	.339	.748
April	69,580	84,171	72,813	77,378	21,926	20,500	24,875	48,743	.315	.244	.342	.630
May	80,107	62,167	82,727	66,655	24,953	14,304	30,312	36,896	.312	.230	.366	.554
June	79,189	50,132	70,714	55,777	23,942	11,254	26,856	34,498	.302	.225	.380	.619
July	44,635	43,623	72,700	80,236	13,009	9,185	33,702	33,061	.272	.211	.464	.412
August	42,741	48,008	74,844	61,375	11,613	9,865	39,834	24,671	.272	.206	.532	.402
September	25,903	59,928	59,062	83,130	6,509	12,394	36,686	32,625	.251	.207	.621	.393
October	39,469	87,152	77,617	66,028	10,375	20,339	50,027	25,321	.263	.233	.645	.384
November	34,839	75,199	84,572	87,706	9,239	19,027	56,272	34,891	.265	.253	.665	.398
December	66,597	58,017	90,336	84,569	16,991	15,922	65,056	33,261	.255	.274	.720	.393

Source: Bureau of Foreign and Domestic Commerce.

The great effect on prices of British restrictions on export of rubber may be judged by comparing the actual import value of rubber per pound with the price of 36 cents per pound which was originally announced as the maximum "fair" price, and the goal sought by the control. The average import value per pound for the year ended June 30, 1926, was 65.47 cents, and the quantity of rubber imported during the 12 months was 921,964,267 pounds. At 36 cents per pound this would have cost American importers $331,907,138 The actual import cost was $603,565,535, a difference of $271,658,397. For the last half of 1926, the cost to American importers in excess of 36 cents per pound for rubber imported amounted to $17,133,794. High prices have retarded crude rubber consumption, increased the use of substitutes, and caused manufacturers to develop satisfactory new compounds.

Beginning May 1, 1926, the regulations provided for restriction of exports unless the price averaged 42 cents or more per pound. In spite of this governmental support to the market, producers have sold their rubber below 40 cents over a period of some months.

Sources of Rubber Imports.

The countries from which crude rubber has been imported into the United States are shown in Table 4. As late as 1913 Brazil was the leading source of supply, but a complete geographic shift has since occurred. Straits Settlements, Dutch East Indies, and Ceylon have been in order of importance the leading primary sources for each of the past four years. All of the rubber from Europe represents reshipments of imported rubber, which comes mostly from the Middle East. A considerable part of the rubber credited to Straits Settlements is produced in the Dutch East Indies. Brazil now ranks a poor fourth among rubber-producing countries. In 1910 Mexico was second only to Brazil as a source of American crude rubber imports (the statistics, however, included guayule as well as rubber); since 1910 Mexico has not been an important factor in the trade, although there has been renewed activity in guayule production during the past two years. The table indicates the present dominant position of British interests in the production and marketing of rubber. Of the total quantity of rubber imported into the United States in 1926, 77 per cent was received from the United Kingdom and the British East Indies, as compared with 19 per cent in 1910.

Table 4.—United States Imports of Crude Rubber, by Countries of Shipment

Year	Total	United Kingdom	Ceylon	Straits Settlements	Other British East Indies	Dutch East Indies	Brazil	Other Europe	All other countries
Quantity, thousands of pounds: [1]									
1900	49, 377	8, 611	(2)	(2)	640	----------	28, 027	8, 388	3, 711
1905	67, 234	10, 025	(2)	1, 899	207	7	36, 594	14, 546	3, 957
1910	101, 045	15, 557	(2)	1, 278	1, 124	18	39, 511	16, 127	[3] 27, 430
1913	113, 384	34, 165	(2)	5, 639	6, 536	81	43, 519	17, 955	5, 490
1920	566, 546	75, 297	(2)	296, 448	55, 476	72, 374	36, 982	16, 840	13, 129
1921	415, 283	41, 521	(2)	219, 194	48, 846	53, 012	23, 274	23, 977	5, 459
1922	674, 410	50, 880	76, 826	406, 327	1, 477	92, 362	25, 009	15, 926	5, 604
1923	692, 483	66, 612	61, 443	399, 108	1, 561	112, 305	25, 940	14, 595	10, 920
1924	734, 845	85, 237	61, 075	407, 850	3, 700	131, 763	29, 026	10, 506	5, 690
1925	888, 478	84, 731	66, 398	517, 148	3, 991	153, 241	34, 715	18, 308	9, 947
1926	925, 878	57, 522	81, 532	573, 204	4, 626	156, 555	29, 659	14, 253	8, 527
Value, thousands of dollars: [1]									
1924	174, 231	22, 315	15, 007	94, 170	911	32, 694	5, 441	2, 466	1, 229
1925	429, 705	47, 951	35, 687	244, 636	1, 857	65, 639	16, 174	12, 306	5, 454
1926	505, 818	33, 536	44, 863	314, 878	2, 615	87, 157	11, 845	7, 206	3, 718

[1] Fiscal years to and including 1913, calendar years thereafter.

[2] Included with "Other British East Indies"; not shown separately.

[3] Includes 23,486,384 pounds of rubber, valued at $10,918,104, from Mexico.

Source: Bureau of Foreign and Domestic Commerce.

World Production.

The world production of crude rubber which is measured by the net exports from producing countries increased about 20 per cent in each of the last two years. While the 1925 increase occurred in both plantation and wild rubbers, the 1926 increase was confined entirely to production of plantation rubber in the Middle East. During 1926, export from restricted areas in the Middle East at a rate of 95.4 per cent of assessed production capacity was permitted by the control, as compared to 67.1 per cent during 1925, and the flood of rubber which came on the market was used to reconstitute depleted stocks in America, England, and elsewhere. The revised statistics shown in Table 5 include crude rubber of all kinds (plantation grades wild rubbers, and guayule; but not gutta percha, balata, or jelutong) which accounts for the difference from corresponding information published in the Commerce Yearbook for 1925, and for the difference between net United States imports shown here as compared with other import tables in this section.

Table 5.—Crude Rubber: World Production, United States Imports and Reexports, Net Imports, and Price

[Quantities are in long tons]

Year	World production			United States[1]				Average yearly price per pound	
	Middle east	Other	Total	Imports	Reexports	Net imports	Per cent of world production	Fine para[2]	Ribbed smoked sheet[3]
1905	174	59, 320	59, 494	28, 637	1, 616	27, 021	45. 4	$1. 243	----------
1910	10, 730	83, 034	93, 764	45, 003	2, 749	42, 254	45. 1	1. 908	$2. 066
1911	17, 197	76, 554	93, 751	44, 424	2, 523	41, 901	44. 7	1. 110	1. 413
1912	32, 976	80, 970	113, 946	58, 435	2, 456	55, 979	49. 1	1. 052	1. 216
1913	53, 322	66, 479	119, 801	53, 906	1, 881	52, 025	43. 4	. 807	. 820
1914	74, 529	48, 586	123, 115	64, 884	2, 618	62, 266	50. 6	. 616	. 653
1915	116, 286	54, 456	170, 742	101, 093	2, 082	99, 011	58. 0	. 557	. 659
1916	161, 800	52, 247	214, 047	121, 709	4, 098	117, 611	54. 9	. 669	. 725
1917	221, 371	56, 688	278, 059	183, 255	4, 000	179, 255	64. 5	. 648	. 722
1918	180, 996	38, 623	219, 619	146, 132	2, 746	143, 386	65. 3	. 549	. 602
1919	348, 936	50, 741	399, 677	240, 689	2, 282	238, 407	59. 6	. 483	. 487
1920	305, 038	36, 888	341, 926	253, 680	4, 160	249, 520	73. 0	. 333	. 363
1921	277, 466	24, 102	301, 568	185, 452	5, 716	179, 736	59. 6	. 182	. 163
1922	379, 438	26, 378	405, 816	301, 203	4, 809	296, 394	73. 0	. 183	. 175
1923	381, 930	27, 118	409, 048	310, 299	8, 772	301, 527	73. 7	. 248	. 295
1924	397, 422	31, 658	429, 080	329, 322	10, 309	319, 013	74. 3	. 212	. 262
1925	475, 440	39, 660	515, 100	400, 423	14, 827	385, 596	74. 9	. 569	. 725
1926	580, 000	40, 000	620, 000	417, 643	17, 671	399, 972	64. 5	. 437	. 487

[1] Import figures in this table include with crude rubber, guayule, which is excluded in other impor tables, but, is included in this table in order to make a comparison with production figures which also include guayule.

[2] Bureau of Labor Statistics, Department of Labor.

[3] Commercial Research Department, United States Rubber Co., for 1905 and 1910, thereafter, compiled from the India Rubber World.

Source: Bureau of Foreign and Domestic Commerce, except for prices.

Crude Rubber Stocks.

The degree of stability of the crude-rubber market depends on the availability of stocks maintained chiefly in the United States and United Kingdom. Table 6 shows stocks in these two countries reported on various representative dates. Available stocks declined steadily from December, 1922, to September, 1925, since when they have rapidly increased as a result of the larger releases from British possessions. At the average monthly rate of consumption in the United States during 1926, the total amount of rubber on hand and afloat for the United States at the end of the year was sufficient for 3.9 months' supply, as compared to only 3 months' supply at the end of 1925, 3.6 at the end of 1924, 4.3 at the end of 1923, and 5.8 months' supply at the end of 1922. Comparing American consumption with total stocks in the United States and the United Kingdom, the number of months' supply available at the end of these years follows: 1926, 5.6; 1925, 3.3; 1924, 4.7; 1923, 7.0; and 1922, 9.2 months.

Table 6.—American and United Kingdom Stocks of Crude Rubber

[Long tons]

Date	Total	United States			United Kingdom
		On hand	Afloat	Total	London and Liverpool
Dec. 31, 1921	209, 420	94, 770	34, 989	129, 759	79, 661
June 30, 1922	196, 034	82, 110	33, 266	115, 376	80, 658
Dec. 31, 1922	216, 620	89, 759	45, 780	135, 539	81, 081
June 30, 1923	185, 983	100, 885	27, 990	128, 875	57, 108
Dec. 31, 1923	176, 213	72, 920	36, 465	109, 385	66, 828
June 30, 1924	144, 822	64, 408	24, 280	88, 688	56, 134
Dec. 31, 1924	131, 415	54, 831	44, 159	98, 990	32, 425
Mar. 31, 1925	120, 733	54, 502	46, 254	100, 756	19, 977
June 30, 1925	102, 302	47, 770	48, 708	96, 478	5, 824
Sept. 30, 1925	89, 817	33, 131	50, 480	83, 611	6, 206
Dec. 31, 1925	104, 564	48, 436	49, 800	98, 236	6, 328
Mar. 31, 1926	115, 847	58, 191	43, 204	101, 395	14, 452
June 30, 1926	125, 366	59, 254	40, 713	99, 967	25, 399
Sept. 30, 1926	135, 578	58, 883	39, 815	98, 698	36, 880
Dec. 31, 1926	170, 755	68, 876	50, 529	119, 405	51, 350
Mar. 31, 1927	193, 084	81, 453	47, 120	128, 573	63, 511

Sources: Rubber Association of America and British Rubber Growers' Association; statistics for United States estimated 95 per cent complete.

Crude Rubber Prices.

The wide fluctuation in crude rubber prices during 1925 and 1926 is shown in Table 7, which contains high and low monthly prices. The price decline in 1920–21 occurred during the period of abnormal trade depression throughout the world and resulted in very heavy losses to manufacturers who were under contract for crude rubber over long periods at the time the decline started. The 1925 price advance was the direct result of the restriction of rubber exports from British possessions in the Middle East, coupled with the materially increased demand for rubber, at a time when world stocks of the commodity had reached a lower point than at any time since 1920.

The decline in price during the early months of 1926 was caused by conservation in use of rubber by manufacturers and conservation in use of tires by motorists, which decreased the demand for crude rubber, and allowed stocks to accumulate in the trading centers.

The average 1926 spot price of ribbed smoked sheet in New York was 48.7 cents per pound as compared to 72.5 cents for 1925. The average price for fine Para declined to 43.7 cents from 56.9 for 1925. The highest monthly average import value per pound during 1926 was for February, 79.8 cents; the lowest, October, was 38.4 cents. The highest spot price for ribbed smoked sheet in New York was at the beginning of 1926, 91 cents (Table 7); the price steadily declined, reaching a low of 36.75 cents in August, recovering to 43 in October, and dropping again to 36.75 in December. The year closed with the market fairly stable at a price around 40 cents. Marketing developments of importance during the year included the opening of the Rubber Exchange at New York in February, and the formation of a group-buying plan by large rubber consumers later in the year.

Table 7.—Monthly Prices of Ribbed Smoked Sheet Rubber at New York

Month	1920	1921	1922	1923	1924	1925	1926
January	51 –55	18 –20½	15½–21¼	28½–37⅛	24¾–26⅝	34¼– 39½	70 –91
February	45 –56½	17½–19	14¼–16¾	33⅞–36⅛	25 –26	34⅜– 38¼	55½–69
March	46 –48	16¼–18	13 –15¼	33⅜–35⅞	20⅛–24¾	38⅛– 43¾	52¾–63
April	42½–45	16 –17¼	14¾–16¾	31 –34¼	22 –23⅛	41¼– 46	46½–59½
May	38 –43	15½–17½	14⅜–16½	26⅞–31⅛	18⅝–22⅝	44¾– 70	47 –50½
June	37¼–39	11½–14¾	14⅝–16¼	24¾–29¼	18⅜–19¾	70 – 87	41½–45
July	29½–35	11½–15½	14½–15¾	24¾–28	18⅝–22⅜	81 –123	40⅛–44½
August	29½–33¾	13½–15	13⅝–14¾	27 –30⅛	24⅛–27⅜	64 – 99	36¾–41
September	23½–28¼	13¾–15¾	13⅝–15¼	28⅜–29⅞	26¼–28	79 – 95	40 –42¼
October	20 –24	14¾–17	15¼–22¾	25¾–28¼	28½–33	92 –102½	42½–43
November	17½–19	16 –19¾	22⅛–26	26¼–27⅞	33¾–35	98 –113	38½–42
December	16 –18½	18¼–21¼	26¾–28⅜	26 –27⅛	35⅝–39⅝	88 –110	36¾–39

Source: India Rubber World.

THE RUBBER-MANUFACTURING INDUSTRY

Position of the Industry.

The United States has a larger rubber manufacturing industry than all other countries combined, our 1926 gross imports of crude rubber—413,338 long tons—being about two-thirds of the total estimated world production for that year. This huge demand for rubber is the result of American automotive development in advance of other countries, 83 per cent of the world's automobiles being within our borders.

The rapid growth of the rubber industry, as reported by the Bureau of the Census, is shown in Table 8. The value of products in 1923 was 36 per cent greater than in 1921 and in 1925 increased over 1923 by 31 per cent. This gain in total value of product was principally a result of the increase of over $200,000,000 in the cost of materials in 1925 over 1923. For the rubber tire branch of the industry, the value of products in 1925 was $925,000,000, an increase of about 44 per cent over the value two years before. The decline in the number of establishments in the tire branch from 160 to 126, indicates the tendency toward centralization of tire manufacturing; there was also a decline in the number of establishments classified in the boot and shoe industry, while for other products the number of plants showed a net increase.

Table 8.—The Rubber Industry[1]

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of material	Value of product	Value added by manufacture
The industry as a whole:							
1899	301	36, 566	70, 536	$15, 426, 573	$60, 240, 559	$99, 880, 693	$39, 640, 134
1909	267	49, 264	121, 721	25, 136, 976	122, 745, 102	197, 394, 638	74, 649, 536
1914	342	74, 022	199, 242	44, 167, 402	163, 034, 713	300, 993, 796	137, 959, 083
1919	477	158, 549	429, 273	193, 763, 089	594, 343, 590	1, 138, 216, 019	543, 872, 429
1921	496	103, 273	(2)	123, 612, 873	377, 879, 372	704, 903, 133	327, 023, 761
1923	529	137, 868	605, 634	182, 084, 056	501, 162, 768	958, 517, 634	457, 354, 866
1925	498	141, 121	656, 857	190, 562, 920	718, 840, 524	1, 255, 414, 112	536, 573, 588
Boots and shoes, rubber:							
1914	23	18, 687	24, 561	9, 986, 454	23, 956, 036	53, 822, 123	29, 866, 087
1919	25	32, 875	49, 400	30, 882, 722	50, 346, 880	116, 917, 434	66, 570, 554
1921	24	23, 888	(2)	23, 428, 115	32, 132, 942	94, 032, 524	61, 899, 582
1923	25	29, 435	56, 184	33, 670, 810	45, 268, 988	131, 739, 742	86, 470, 754
1925	23	24, 999	59, 413	28, 057, 948	40, 566, 085	115, 934, 554	75, 368, 469
Tires and inner tubes, rubber:[3]							
1921	178	55, 496	(2)	75, 054, 148	291, 554, 377	496, 123, 335	204, 568, 958
1923	160	73, 963	370, 551	108, 623, 102	365, 165, 016	644, 193, 697	279, 028, 681
1925	126	81, 640	403, 227	120, 614, 081	559, 939, 811	925, 001, 520	365, 061, 709
Rubber goods, not elsewhere classified:[4]							
1921	294	23, 889	(2)	25, 130, 610	54, 192, 053	114, 747, 274	60, 555, 221
1923	344	34, 470	178, 899	39, 790, 144	90, 728, 764	182, 584, 195	91, 855, 431
1925	349	34, 482	194, 217	41, 890, 891	118, 334, 628	214, 478, 038	96, 143, 410

[1] Figures are not strictly comparable for censuses prior to 1909.
[2] Not called for in schedule for 1921.
[3] Not separately classified prior to 1921.
[4] Figures for this group prior to 1921 are not comparable.

Source: Bureau of the Census.

Consumption of Crude Rubber.

Statistics showing consumption of crude rubber in manufactures, prepared by the Rubber Association of America, represent a slightly varying percentage of the industry for different periods covered, but are indicative of the general trend. In 1926 the crude rubber consumed as thus reported was 738,622,000 pounds, a decline of 54,054,000 pounds from the total for 1925. (Table 9.)

The consumption of crude rubber in each quarter of 1926 was less than for the corresponding quarter of 1925. (Table 10.) This does not necessarily indicate the relative manufacturing activity as the use of rubber substitutes was more common in 1926 than in 1925. The first and third quarters were the most active, following the normal seasonal trend.

Over three-fifths of the crude rubber consumed in the United States is used in automobile casings, the percentages being 60.4 in 1925 and 63.6 in 1926. Inner tubes for automobiles used 16.6 per cent in 1925 and 15.3 per cent in 1926. The relative consumption of crude rubber for automobile solid tires has declined steadily from 7.3 per cent in 1922 to 4.6 per cent in 1926. In the aggregate, tires and tire sundries used over 85 per cent of the rubber consumed in the United States in 1926.

Table 9.—Consumption of Crude Rubber and Value of Output by Classes of Products

[In thousands of pounds or dollars]

Product	Consumption of crude rubber				Value of products			
	1922	1924	1925	1926	1922	1924	1925	1926
Grand total	569, 376	675, 983	792, 676	738, 622	795, 084	892, 720	1, 142, 096	1, 206, 022
Tires and tire sundries	464, 137	563, 723	665, 249	630, 909	532, 192	598, 416	803, 659	866, 795
Automobile casings	327, 754	408, 370	478, 742	469, 992	423, 271	467, 361	618, 266	680, 026
Automobile tubes	84, 716	111, 176	131, 716	113, 362	62, 307	83, 408	117, 631	121, 891
Motor-cycle tires (casings and tubes)	959	804	909	712	1, 582	1, 389	2, 189	2, 083
Bicycle tires and tubes	2, 011	1, 516	1, 817	1, 691	3, 533	3, 255	3, 011	2, 860
Other casings and tubes	1, 185	(1)	(1)	(1)	2, 258	335	450	425
Solid tires for automobiles	41, 598	34, 601	41, 355	33, 764	27, 876	27, 672	40, 842	36, 098
Other solid tires	788	710	1, 033	732	1, 027	516	1, 440	898
Sundries and repair materials	5, 126	6, 514	9, 675	10, 656	10, 338	14, 480	19, 830	22, 514
Other rubber products	105, 239	112, 260	127, 427	107, 713	262, 892	294, 304	338, 437	339, 227
Mechanical rubber goods	34, 952	32, 133	41, 998	33, 925	68, 970	74, 537	102, 607	98, 258
Boots and shoes	26, 847	30, 970	29, 575	31, 909	102, 688	108, 590	100, 675	114, 594
Insulated wire and insulating compound	4, 925	6, 440	7, 170	6, 825	21, 955	30, 214	33, 379	35, 487
Druggists' rubber sundries	5, 581	5, 432	5, 286	4, 731	12, 290	12, 702	13, 711	12, 931
Proofed goods	5, 978	6, 283	5, 943	5, 613	16, 135	20, 270	21, 754	22, 662
Hard-rubber goods	5, 104	6, 332	5, 589	2, 547	8, 256	10, 729	12, 719	10, 355
Heels and soles	13, 302	12, 965	18, 341	9, 659	18, 761	19, 893	27, 565	18, 373
Rubber flooring			[2] 1, 481	1, 942			[2] 2, 971	4, 241
Miscellaneous, not included above	8, 550	11, 704	12, 044	10, 562	13, 837	17, 369	23, 056	22, 326

[1] Data for year not available.

[2] Last 9 months only.

Source: Rubber Association of America (Inc.).

Consumption of rubber in mechanical rubber goods, while not varying much in absolute quantity from 1922 to 1924, dropped from 6.1 per cent of the total to 4.8 per cent; in 1925 the absolute consumption increased substantially, but the proportion of total only rose to 5.3 per cent. In 1926 consumption fell sharply to 33,925,000 pounds which was little more than in 1924 and only constituted 4.6 per cent of the total. The proportion consumed in rubber boots and shoes, which declined from 5.9 per cent in 1923 to 3.7 per cent in 1925, increased to 4.3 per cent in 1926. The 1926 consumption for rubber heels and soles was about half of that for 1925, the percentage of the total declining from 2.3 in 1925 to 1.3 in 1926. This precipitate decrease was probably caused by greatly decreased production of crêpe rubber soles, which ceased to be competitive on account of the high prices of rubber. The 1926 consumption of rubber for tire repair materials was slightly above that for 1925, reflecting the extent to which repairing of tires was stimulated by high prices.

Monthly Variations in Rubber Consumption.

It is difficult to state what is the normal tendency in monthly rubber consumption, but a careful analysis of statistics for the 1923–1926 four-year period shows that consumption has usually been at a peak during February and March, has continued at a high rate during April and May, has dropped sharply in June and reached a low point in July, has increased somewhat in August and again in September, has then declined each month until the end of the year, and has increased again in January toward the February peak. This seasonal trend of rubber consumption results from the seasonal trend of the demand for automobile tires, the chief product of the industry. Imports of rubber into America are usually heaviest in May, decline thereafter until August, then increase monthly until December or January, and decline slightly in February and March. Stocks of rubber are normally accumulated during the closing months of the year, and are lowest during the third quarter of the year.

In 1926 consumption of rubber in finished goods was fairly steady during the first four months, declined in May, June, and July, increased to a peak in August and September, and then dropped monthly to a low point in December. Large manufacturers' inventories of tires caused the reduced manufacturing activity during the second quarter of 1926, while a decrease in automobile production accounts for the low rubber consumption in the closing months of the year.

Table 10.—Quarterly Consumption of Crude Rubber in Different Classes of Products

[In thousands of pounds]

Product	1925				1926			
	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.
Grand total	**196, 318**	**214, 527**	**205, 036**	**176, 794**	**194, 336**	**179, 514**	**193, 290**	**171, 483**
Tires and tire sundries	159, 808	183, 696	175, 956	145, 788	163, 701	153, 534	168, 318	145, 356
Automobile casings	114, 596	132, 129	126, 468	105, 549	120, 716	114, 787	126, 298	108, 192
Automobile tubes	32, 838	35, 240	34, 568	29, 071	30, 650	27, 861	29, 736	25, 115
Other casings and tubes	--------	2	--------	--------	--------	--------	--------	--------
Solid tires for automobiles	9, 332	12, 992	11, 644	7, 388	9, 643	7, 573	8, 292	8, 254
Other tires and tire sundries	3, 042	3, 333	3, 277	3, 781	2, 692	3, 313	3, 992	3, 795
Other rubber products	**36, 510**	**30, 831**	**29, 080**	**31, 006**	**30, 634**	**25, 980**	**24, 972**	**26, 127**
Mechanical rubber goods	11, 959	10, 940	9, 852	9, 247	9, 124	7, 860	8, 873	8, 068
Boots and shoes	8, 714	5, 831	6, 429	8, 602	8, 570	8, 626	6, 485	8, 228
Heels and soles	4, 937	4, 729	4, 108	4, 567	3, 595	2, 397	1, 617	2, 050
Miscellaneous not included above	10, 900	[1] 9, 332	[1] 8, 691	[1] 8, 590	9, 345	7, 096	7, 997	7, 782

[1] Includes data for rubber flooring, reported for last nine months of the year only.

Source: Rubber Association of America (Inc.).

Value of Output of Rubber Products.

The total value of the output of the rubber industry in 1926 exceeded that for any previous year, although prices declined during the year. The total 1926 value as reported by the Rubber Association, was $1,206,022,000 which compares with $1,142,096,000 for 1925 and $892,720,000 for 1924. The more comprehensive census returns (Table 8) show the total 1925 value of products at $1,255,414,000.

Production and Stocks of Casings, Tubes, and Solid Tires.

The Bureau of the Census has reported the total production of tires and tubes in recent census years. (Table 11.) The 1925 output of pneumatic casings was 58,784,000, an increase of 29 per cent as compared with 1923. The increase in pneumatic inner tubes was relatively a little greater, about 35 per cent.

Table 11.—Census Statistics of Production of Automobile Tires

Year	Pneumatic casings		Pneumatic inner tubes		Solid tires	
	Number	Value	Number	Value	Number	Value
1914	8,021,000	$105,679,000	7,907,000	$20,101,000	(1)	$13,736,000
1919	32,836,000	603,896,000	33,255,000	81,313,000	1,455,000	43,917,000
1921	27,298,000	377,829,000	32,082,000	52,858,000	401,000	14,736,000
1923	45,426,000	458,108,000	57,229,000	74,983,000	944,000	29,061,000
1925	58,784,000	656,492,000	77,388,000	118,235,000	1,035,000	43,870,000

[1] Number of solid tires not reported for 1914.

Since 1920 the Rubber Association of America has published monthly figures of production of automobile tires and inner tubes, which are shown in Table 13 and Chart II. The association estimates that its figures for casings and tubes cover approximately 75 per cent of the national output.

Table 12.—Production, Shipments, and Stocks of Pneumatic Casings, Inner Tubes, and Solid Tires

NOTE.—See text as to proportion of total national output covered by these statistics.

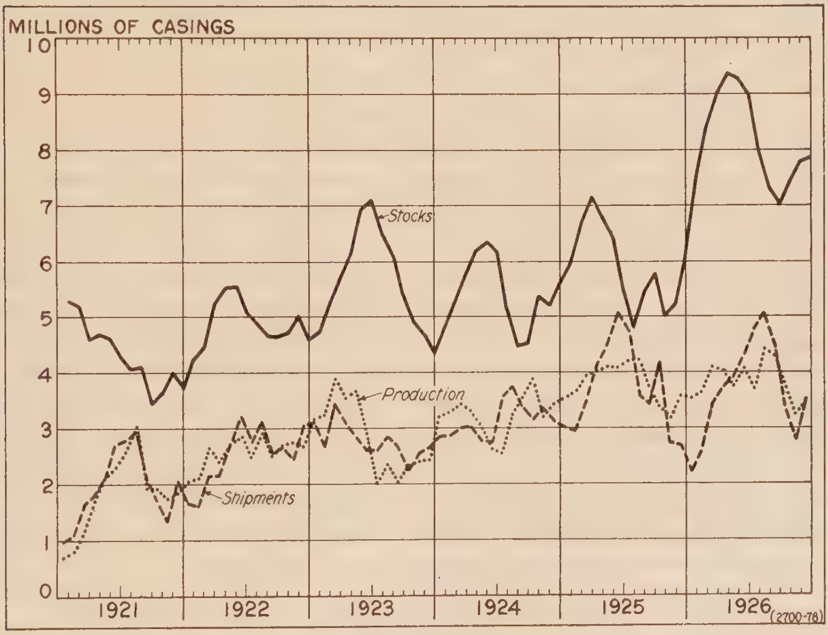
[In thousands]

Year	Production			Shipments			Stocks, end of year		
	Casings	Inner tubes	Solid tires	Casings	Inner tubes	Solid tires	Casings	Inner tubes	Solid tires
1921	21,857	27,127	428	23,384	27,847	555	3,775	4,771	169
1922	30,874	38,267	796	30,199	37,361	733	4,638	5,771	245
1923	34,116	45,219	712	33,429	44,417	754	4,372	6,363	180
1924	38,804	53,094	699	37,666	51,094	688	5,591	8,313	194
1925	45,729	62,047	783	44,545	60,816	823	6,119	8,495	150
1926	46,177	57,514	578	44,317	53,729	558	7,856	12,165	168

Source: Rubber Association of America (Inc.).

The months of lowest production of automobile casings in 1926 were January, February, November, and December; the peak month was August. Dealer buying fell off in the late months of 1925, partly owing to the seasonal trend, partly reflecting decreased consumer buying at prevailing high prices, and partly because manufacturers generally discontinued spring dating terms to dealers, who were in any case not desirous of stocking heavily with high-priced tires. This state of affairs continued during the early months of 1926, influenced by the campaign for rubber conservation, and the natural hand-to-mouth buying during a period of falling market prices. Unexpectedly good mileage records resulted from the greater use of balloon tires. A survey of dealers' stocks of tires on April 1, 1927, showed a higher average number of casings per dealer on hand than at the same date in either 1925 or 1926, while a survey as of October 1, 1926, showed lower stocks than for either 1924 or 1925.

Chart II.—PRODUCTION, SHIPMENTS, AND STOCKS OF PNEUMATIC CASINGS



The sharp decline in production of automobiles at the end of 1926 was reflected in December tire-production schedules. Shipments of casings to manufacturers of automobiles, described as original equipment sales, constituted 27 per cent of total reported shipments in 1922, 37 per cent in 1923, 28 per cent in 1924, 30.6 per cent in 1925, end 30.8 per cent in 1926. Tire manufacturers stocks were heavier by 1,737,000 casings, 3,670,000 inner tubes, and 18,000 solid tires at the end of 1926 than at the beginning of the year.

Table 13.—Production of Pneumatic Casings and Inner Tubes, by Months

NOTE.—See text as to proportion of total national output covered by these statistics.

Month	Casings (thousands)						Inner tubes (thousands)					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Total	21, 857	30, 874	34, 116	38, 804	45, 729	46, 177	27, 127	38, 267	45, 219	53, 094	62, 047	57, 514
January	703	2, 061	3, 139	3, 225	3, 560	3, 548	741	2, 349	3, 962	3, 890	4, 761	5, 110
February	820	2, 095	3, 236	3, 284	3, 687	3, 657	917	2, 606	4, 055	4, 070	4, 758	5, 123
March	1, 163	2, 665	3, 891	3, 433	3, 964	4, 099	1, 346	3, 035	4, 893	4, 223	5, 254	5, 275
April	1, 653	2, 415	3, 563	3, 315	4, 012	4, 014	1, 763	2, 661	4, 275	4, 041	5, 158	4, 918
May	2, 102	2, 736	3, 685	3, 048	4, 106	3, 771	2, 211	2, 982	4, 339	3, 755	5, 138	4, 615
June	2, 314	2, 856	2, 980	2, 638	4, 072	4, 072	2, 360	3, 145	3, 606	3, 501	5, 215	4, 633
July	2, 572	2, 495	2, 005	2, 559	4, 199	3, 718	3, 021	3, 076	2, 636	3, 863	5, 666	4, 301
August	3, 046	2, 924	2, 368	3, 241	4, 214	4, 411	4, 431	3, 820	3, 586	5, 024	5, 718	5, 572
September	1, 932	2, 520	2, 036	3, 539	3, 764	4, 286	3, 276	3, 511	3, 262	5, 512	5, 454	5, 698
October	1, 933	2, 690	2, 367	3, 882	3, 389	3, 833	2, 848	3, 802	3, 861	5, 902	4, 966	4, 665
November	1, 768	2, 749	2, 405	3, 196	3, 181	3, 250	2, 135	3, 860	3, 453	4, 605	4, 708	3, 644
December	1, 850	2, 670	2, 441	3, 444	3, 579	3, 520	2, 079	3, 420	3, 290	4, 707	5, 253	3, 961

Sources: Rubber Association of America (Inc.).

Types of Tires Produced.

In 1922, only high pressure tires were manufactured, and over 50 per cent of the total produced were fabric tires. In 1926 (Table 14) only slightly over 5 per cent of the tires made were fabrics, while the proportion of cord tires advanced to 94.5 per cent. Production of balloon tires, begun late in 1923, has steadily increased, the percentage of total production reaching 46.5 per cent in 1926. "Balloon type" tires for regular size rims have dwindled in importance each year and amount to less than 1 per cent of total production. A few manufacturers continue to manufacture tires with metric sizes for export. The fabric tire is rapidly becoming obsolete in America. The present trend indicates increasing concentration on the balloon tire, which is essentially a straight side tire. Elimination of balloon type and fabric tires is gradually taking place, and clincher tires are being displaced by straight sides. This has resulted in increasing standardization on true balloon tires and cord tires.

Table 14.—Production of Various Types of Automobile Casings

[In thousands]

Type	1922	1923	1924	1925	1926	Per cent of total	
						1925	1926
Total	30, 874	34, 116	38, 807	45, 729	46, 277	100. 0	100. 0
Cord tires, inch sizes, total	14, 933	19, 489	27, 230	39, 199	43, 724	85. 7	94. 5
Clincher, high pressure, regular	3, 927	6, 872	10, 706	13, 667	13, 103	29. 9	28. 3
Straight side, high pressure, regular	11, 006	12, 617	12, 312	7, 321	5, 784	16. 0	12. 5
Heavy duty and 20-inch, high pressure	(1)	(1)	(1)	2, 643	2, 913	5. 8	6. 3
Balloon, for 18, 19, 20, 21, and 22 inch rims			[2] 3, 164	14, 501	21, 512	31. 7	46. 5
Balloon type for regular size rims			[2] 1, 047	1, 067	413	2. 3	. 9
Fabric tires, inch sizes	15, 765	14, 455	11, 498	6, 434	2, 480	14. 1	5. 3
Millimeter sizes, for export	176	172	79	96	73	. 2	. 2

[1] Included with regular sizes.

[2] Figures represent last nine months of 1924. Very few manufactured previously.

Source: Rubber Association of America (Inc.).

Output of Other Products.

Consumption of crude rubber in mechanical rubber goods (belting, hose, and packing) decreased from the high consumption of 41,998,000 pounds in 1925 to 33,925,000 pounds in 1926, practically the 1924 level. These figures indicate that reclaimed rubber is being increasingly used in the manufacture of mechanical rubber goods to combat high prices of crude rubber. In no quarter during 1926 was the consumption of crude rubber for mechanical rubber goods as large as in any quarter of 1925.

The total value of annual output of rubber boots and shoes decreased 19 per cent from 1923 to 1925, but increased 14 per cent in 1926, when it amounted to $114,594,000. The total value in 1923 was $123, 631, 000. As the 1926 consumption of crude rubber was also the highest since 1923, this increase in value indicates increased production and not merely increased cost of materials. The total value of production of heels and soles amounted to $18,373,000 in 1926, which was one-third less than in 1925. The consumption of rubber in heels and soles showed an even larger decline.

Although the consumption of crude rubber for insulated wire and insulating compounds decreased from 7,170,000 pounds in 1925 to 6,825,000 pounds in 1926, the total value of products increased from $33,379,000 to $35,487,000. The 1926 consumption of crude rubber in making hard rubber goods was less than half that for 1925, while the total value of products declined only from $12,719,000 in 1925 to $10,355,000 in 1926. In all these lines, reclaimed rubber has been used to partially replace crude rubber during 1926. Manufacturing activity for druggists' rubber sundries was evidently less in 1926 than in 1925 as the drop in total value, although not large, was more in proportion to the drop in consumption of crude rubber than in the case of any other prominent line. The consumption of crude rubber for proofed goods has declined steadily since 1923 but the total value of products in 1926 increased over 1925 and was exceeded only by 1923.

Increased Use of Reclaimed Rubber.

Reclaimed rubber finds a wide use in the manufacture of hose and packings; mats and matting; footwear, heels, and soles; insulating compounds and hard rubber goods; and can be used to some extent in a great many products. During the period of relatively low-priced crude rubber from 1921 to 1924 manufacturers often used crude rubber when reclaimed rubber would serve the purpose; with the abnormally high prices of crude rubber in 1925, the advantage in use of reclaimed rubber became pronounced, with a resultant heavy increase in its use. Statistics, admittedly incomplete, of the Rubber Association indicate that in 1917, a year when supplies of crude rubber were difficult to obtain because of war conditions, 57 per cent as much reclaimed rubber was used as of crude rubber. The ratio declined to 19 per cent in 1922, and was only 25 per cent in 1923 and 1924.

A survey of the rubber reclaiming industry for 1925 made by the Rubber Division of the Bureau of Foreign and Domestic Commerce, showed that about 137,000 tons of reclaimed rubber were consumed and the ratio to crude rubber was 35 per cent. A more detailed survey was made in 1926, the figures for both production and consumption being over 90 per cent complete. The 1926 production of reclaimed rubber was reported at 180,000 long tons and consumption at 164,500 long tons minimum. The ratio of reclaimed rubber to crude rubber consumed in 1926 was 45 per cent, the highest since 1917. The survey showed that in the manufacture of rubber tires and tubes, the ratio of reclaimed to crude consumed was 20 per cent and in other rubber products the ratio was 177 per cent. The annual production capacity of reclaiming plants at the end of 1926 was reported as 227,593 long tons.

Price Trend of Rubber Products.

The general trend of the tire prices, which was downward from 1920 to 1924, turned sharply upward in 1925, when at five times general increases were made effective. In February, July, and December, of 1926, tire prices were reduced until the present average wholesale price for four common sizes is lower than before the price increases of 1925. The relatively low price of crude rubber was an important factor in keeping tire prices down from 1922 to 1924, but manufacturing and other economies were instituted during this period which enabled manufacturers to keep prices of tires stable for a considerable time in the face of mounting crude rubber costs in 1925. The late spring of 1926 coupled with disuse of the spring-dating system, by which dealers are protected by manufacturers from tire price declines from January to May, caused manufacturers' tire stocks to increase.

Tire replacements for the low-price cars which had changed from fabric to cord original equipment had also slowed up owing to the greater wearing ability of the cord type. Successive tire price reductions to the present low levels were necessary to move manufacturers' stocks.

Prices of other products also followed an upward curve during 1925, the fine rubber goods, like druggists' sundries, toy balloons, and gum rubber specialties, reacting most rapidly to the advance in price of crude rubber. During 1926 prices of these products declined.

Prices of mechanical rubber goods and footwear were not as erratic as those for fine rubber goods, but increased during the summer months and decreased to generally lower levels at the end of 1926 than at the beginning. The demand for different types of rubber footwear is seasonal.

FOREIGN TRADE IN RUBBER PRODUCTS

Record Year for Export Trade.

The total value of United States exports of rubber products in 1926 was $60,051,000, compared with $52,630,000 in 1925 and $40,622,000 in 1924. This large 1926 increase in value is estimated to have been due one-fourth to increased volume of business and three-fourths to higher prices. The volume of exports of automotive rubber goods declined slightly, but in rubber footwear and mechanical goods the volume trend was upward. In each case the increase or decrease was shared by every item in the class. Increases in rubber soles and heels and canvas rubber-soled shoes were outstanding among the footwear, while in mechanical rubber goods the increase in exports of rubber hose is notable. The steady gain in exports of reclaimed rubber is also of interest.

Table 15.—Exports of Rubber Products

Product	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total					**36,972**	**40,622**	**52,630**	**60,051**
Rubber, reclaimed ... pounds	4,508	5,458	10,240	12,076	469	524	1,067	1,425
Rubber, scrap and old ... do	13,806	21,452	30,951	29,843	620	839	1,616	1,947
Footwear:								
Rubber boots ... pair	395	680	907	1,013	948	1,592	2,091	2,372
Rubber shoes ... do	1,084	1,681	1,106	1,486	903	1,375	985	1,452
Canvas rubber soled shoes ... do	3,791	3,918	4,642	5,469	2,920	2,962	3,291	3,969
Casings for automobiles ... number	1,363	1,250	1,628	1,497	15,293	15,063	21,056	24,359
Tubes for automobiles ... do	1,016	1,104	1,475	1,127	1,740	2,021	2,975	3,024
Solid tires for automobiles and motor trucks ... do	97	103	113	98	2,376	2,691	3,180	3,458
Tire rubber accessories and repair materials ... pounds	831	1,315	2,455	(1)	359	521	1,104	1,612
Druggists' rubber sundries					774	1,298	1,665	1,272
Hard-rubber goods ... pounds	1,194	1,000	1,689	(1)	647	819	953	682
Belting ... do	3,548	3,572	4,079	4,176	2,032	2,089	2,425	2,657
Hose ... do	4,456	4,423	5,349	6,125	1,735	1,729	2,098	2,523
Packing ... do	1,564	1,855	1,915	2,149	731	838	881	1,097
Heels and soles ... do	1,904	2,511	3,392	4,277	679	823	1,059	1,363
Thread ... do	895	1,240	1,517	1,460	917	1,379	1,816	1,958
Other rubber manufactures					3,828	[2] 4,059	[2] 4,370	[2] 4,881

[1] Quantity for 1926 not available.

[2] For 1924 includes rubber toys, balls, and balloons, valued at $980,578; for 1925, $1,289,229; and for 1926, $846,072.

Source: Bureau of Foreign and Domestic Commerce.

Growth of Rubber Export Trade.

The total value of exports increased almost steadily from about $5,000,000 in 1901 to about $15,000,000 in 1915. (Table 16.) A much more rapid development occurred in the 1916-1920 period, when the total value of exports increased from $35,152,000 in 1916 to the high record of $85,437,000 in 1920. The war, which caused foreign orders to come to America, also was responsible for very high prices of finished goods; the volume of trade did not keep pace with the inflated values. The 1921 slump reduced the total value of our rubber goods exports to $30,786,000, but since then it has about doubled in value reaching the total of $60,051,000 in 1926.

Table 16.—Value of Exports of Rubber Products

[In thousands of dollars]

Year [1]	Total	Tires and tubes	Footwear	Mechanicals	Reclaimed and scrap	All other
1901	5, 119	([2])	2, 183	566	642	1, 728
1902	6, 627	([2])	3, 641	634	570	1, 782
1903	6, 981	([2])	3, 363	820	498	2, 300
1904	7, 460	([2])	3, 397	880	713	2, 470
1905	5, 508	([2])	1, 214	994	728	2, 572
1906	6, 544	([2])	1, 505	1, 221	852	2, 966
1907	7, 428	([2])	1, 232	1, 253	1, 214	3, 730
1908	7, 574	([2])	1, 614	1, 348	869	3, 743
1909	7, 433	([2])	1, 292	1, 498	818	3, 824
1910	10, 176	([2])	1, 985	1, 961	1, 115	5, 115
1911	12, 452	2, 677	2, 219	2, 163	1, 506	3, 887
1912	12, 823	3, 205	1, 503	2, 315	1, 656	4, 144
1913	14, 324	4, 554	1, 438	2, 606	1, 813	3, 913
1914	12, 439	4, 068	1, 113	2, 373	1, 432	3, 453
1915	14, 766	5, 540	2, 781	1, 808	1, 114	3, 525
1916	35, 152	20, 939	2, 665	2, 987	1, 271	7, 290
1917	31, 105	14, 878	3, 199	3, 532	1, 230	8, 266
1918	33, 343	15, 109	5, 774	4, 578	803	7, 079
1919	53, 864	30, 482	5, 265	6, 100	1, 649	10, 369
1920	85, 437	53, 075	10, 750	8, 398	1, 617	11, 597
1921	30, 786	16, 313	3, 397	4, 107	579	6, 391
1922	34, 009	20, 393	3, 740	3, 156	557	6, 162
1923	36, 972	19, 961	4, 772	4, 498	1, 089	6, 651
1924	[3] 40, 622	20, 301	5, 929	4, 656	1, 363	[3] 8, 373
1925	[3] 52, 630	27, 899	6, 367	5, 404	2, 683	[3] 10, 277
1926	[3] 60, 051	31, 562	7, 792	6, 277	3, 372	[3] 11, 046

[1] Fiscal years to and including 1918, calendar years thereafter.

[2] Included with "all other" prior to 1911.

[3] Includes the value of rubber toys, balls, and balloons as follows: For 1924, $980,578; 1925, $1,289,229; and for 1926, $846,072.

Source: Bureau of Foreign and Domestic Commerce.

American Rubber Exports Widely Distributed.

American exports of rubber goods are distributed throughout the world. (Table 17.) The dominant share of the total trade in rubber products in Latin America is obtained by American manufacturers, and exports even to other rubber manufacturing countries, the United Kingdom, Canada, Japan, Australia, Germany, and France, are fairly large. About the only part of the world where American exporters did not secure a representative share of the trade in rubber products in 1926 was Africa—particularly French Africa and British West Africa. Other markets apparently capable of further development include Egypt, Turkey, French Indo-China, and various European countries. In order to develop business with any of these markets exporters must be prepared to meet severe competition from European manufacturers, and in the French colonies and certain of the British possessions the tariff preferences favoring French or British Empire products make price competition from American companies very difficult.

Table 17.—Exports of Automobile Casings, Rubber Belting, and Rubber-Soled Canvas Shoes, by Countries of Destination

[All value figures in thousands of dollars; quantities in thousands of casings, thousands of pounds of belting, and thousands of pairs of shoes]

Country	Casings								Belting		Canvas rubber-soled shoes	
	Quantity				Value				Quantity	Value	Quantity	Value
	1923	1924	1925	1926	1923	1924	1925	1926	1926	1926	1926	1926
Total	1,363	1,250	1,628	1,497	15,293	15,063	21,056	24,359	4,176	2,657	5,469	3,969
Belgium	7	15	23	15	104	219	452	338	168	88	3	4
Denmark	47	58	86	45	569	601	865	567	34	24	181	142
France	7	12	27	16	82	171	465	322	68	47	5	5
Germany	3	2	11	81	53	29	305	622	29	20	38	37
Netherlands	14	18	30	24	185	238	487	538	14	9	6	7
Norway	23	18	22	16	351	242	351	346	16	11	67	52
Spain	18	10	27	39	287	183	414	676	24	16	2	2
Sweden	45	52	56	41	617	712	961	806	80	50	2	4
United Kingdom	329	176	185	152	2,890	1,969	2,195	2,516	271	197	334	261
Canada	62	50	21	15	733	556	345	257	360	223	52	38
Mexico	71	91	88	80	780	989	1,058	1,079	386	268	427	359
Cuba	76	87	87	114	816	969	961	1,354	77	53	852	503
Argentina	108	113	178	201	1,126	1,291	2,022	2,818	126	90	1,036	598
Brazil	32	37	92	78	302	329	923	944	145	107	2	2
Chile	13	11	20	17	183	181	371	348	584	308	39	25
Colombia	8	9	13	18	122	135	233	416	25	20	275	179
Peru	13	22	17	13	189	346	301	322	76	54	12	9
Uruguay	18	20	34	29	207	233	398	421	19	18	93	62
Venezuela	12	16	25	20	139	203	362	461	40	31	9	5
British India	17	17	34	32	163	198	378	449	101	74	242	204
Straits Settlements	13	12	24	15	117	131	222	196	12	8	101	70
China	7	7	16	21	84	84	192	310	70	37	62	59
Dutch East Indies	16	22	31	30	204	234	360	465	59	45	28	31
Japan	53	70	82	79	568	734	824	882	68	36	------	------
Philippine Islands	48	53	72	58	550	628	751	834	154	100	935	754
Australia	59	68	77	47	842	969	1,253	1,185	265	146	69	72
New Zealand	73	44	60	15	956	634	814	329	13	8	3	4
British Africa	52	32	34	22	593	436	426	375	375	218	42	39
Other countries	118	109	156	164	1,483	1,420	2,369	3,186	517	354	552	442

Source: Bureau of Foreign and Domestic Commerce.

Competition in Rubber Goods Exports.

The United States is the world's leading rubber manufacturing country. However, its position as an exporter of rubber manufactures is by no means dominating, as less than 5 per cent of our total rubber manufactures enter into export trade, while it is estimated that approximately 50 per cent of the rubber manufactures of France and the United Kingdom are exported. In recent years an increasing percentage of American foreign orders have been filled through shipments from Canadian branch factories, and Canada is becoming a more important factor in the trade. This Canadian increase has been most marked for tires and footwear, although considerable expansion has also occurred in the case of mechanical rubber goods. Canadian distribution is confined generally to the British Empire markets, although several notable exceptions are evident.

Since the close of the war the tire export trade has been highly competitive. In 1919 and 1920 European manufacturers were engaged in supplying the demand in local markets, and the United States continued the leadership in the trade gained during the war. The 1921 slump in America occurred just as foreign manufacturers recovered sufficiently to actively exploit foreign markets, and from 1921 on France has been the leading exporter of tires, with the United States a close second. Leading French tire manufacturers have factories in Italy from which they export to many markets; likewise leading American manufacturers have Canadian factories which are being increasingly used to supply export orders. Table 18 shows the estimated number of automobile casings exported by each of the principal manufacturing countries in each year from 1919 to 1926. In 1926 the total volume of business increased only slightly over 1925, and United States exports actually declined, while French exports increased. The combined figure for the United States and Canada, however, exceeded the combined figure for France and Italy. United States statistics shown in this table include exports to noncontiguous territories in addition to foreign countries.

Table 18.—Estimated Exports of Automobile Casings from Principal Manufacturing Countries

[In thousands]

Country	1919	1920	1921	1922	1923	1924	1925	1926
Total	**2,761**	**4,508**	**2,702**	**3,839**	**4,699**	**5,131**	**6,777**	**6,837**
United States	1,000	1,755	840	1,326	1,363	1,389	1,770	1,654
Canada	185	342	119	290	480	500	848	1,120
France	655	1,088	1,079	1,210	1,510	1,677	1,872	1,902
Italy	213	485	227	330	490	667	801	720
United Kingdom	484	488	163	271	397	550	872	904
Germany	25	75	150	192	252	144	175	208
Belgium	44	110	30	70	72	86	144	196
Japan	155	165	94	150	135	118	295	133

Source: Rubber Division, Bureau of Foreign and Domestic Commerce.

The United States is by far the most important exporter of rubber footwear although Canada is making rapid advances. However, the Canadian business is again largely supplementary to the business of manufacturers in the United States. France, the other principal competitor, gained in 1926 in about the same ratio as the United States, but competition from Germany and the United Kingdom is not as severe as formerly. Among the minor exporting countries Sweden showed a gain similar to that of the United States, while Austria's trade was much curtailed.

Among the prominent rubber belting exporting countries the United States and France increased their shipments in 1926 while exports from the United Kingdom and Canada declined slightly. In exports of rubber hose, the position of the United States is supreme as shipments from Germany, the nearest competitor, declined. The United Kingdom and France are other secondary sources. Table 19 compares exports of rubber footwear, belting, and hose from principal manufacturing countries. Statistics of the United States on rubber footwear include shipments to Alaska, Hawaii, and Porto Rico in addition to exports to foreign countries.

Table 19.—Exports of Rubber Boots and Shoes, Belting, and Hose from Principal Manufacturing Countries

Country	Boots and shoes (thousands of pairs)			Belting (thousands of pounds)			Hose (thousands of pounds)		
	1924	1925	1926	1924	1925	1926	1924	1925	1926
Total	**21,664**	**23,916**	**26,413**	**9,752**	**10,790**	**10.813**	**11,757**	**13,482**	--------
United States	7,090	7,295	8,478	3,577	4,079	4,176	4,423	5,349	6,125
Canada	3,056	4,431	6,630	702	1,213	1,149	[1] 393	[1] 556	[1] 666
France	[1] 3,232	[1] 3,888	[1] 4,529	[1] 962	[1] 918	[1] 1,076	[1] 1,442	[1] 1,376	[1] 1,615
Italy	3	27	[2] 20	24	50	[2] 28	219	456	[2] 432
United Kingdom	3,113	3,380	2,744	2,659	2,881	2,658	1,505	1,705	(3)
Germany	[1] 3,552	[1] 3,439	[1] 2,780	528	703	729	3,175	3,306	3,259
Belgium	--------	[1] 10	[1] 30	[1] 425	352	348	100	149	210
Sweden	[1] 825	[1] 727	[1] 945	100	105	(3)	--------	--------	--------
Austria	[1] 793	[1] 719	[2] 257	--------	--------	--------	500	585	[2] 503
Norway	--------	--------	--------	250	333	343	--------	--------	--------
Czechoslovakia	--------	--------	--------	525	156	306	--------	--------	--------

[1] Estimated on basis of units other than reported here.
[2] Estimated on basis of partial returns.
[3] Not yet available.

Source: Bureau of Foreign and Domestic Commerce and trade returns of specified countries.

Imports of Rubber Products.

The United States imports of rubber products are of relatively little importance. The chief classes imported are golf balls, rubber and balata belting, hard-rubber goods, a certain quantity of tires, and some druggists' rubber sundries.

Golf-ball imports in 1926, mostly from the United Kingdom, numbered 3,362,049, valued at $1,377,205, an increase over 1925. Imports of rubber and balata belting decreased from 748,580 pounds, valued at $559,908, in 1925 to 731,827 pounds, valued at $488,486, in 1926, about 85 per cent coming from the United Kingdom.

Imports of hard-rubber goods, coming mainly from Germany and Austria, increased in value to $379,521 in 1926 from $338,043 in 1925; these imports included 200,864 dozen of hard-rubber combs, valued at $111,051. Tire imports again declined, from 21,139, valued at $263,185, in 1925 to 17,504, valued at $161,303, in 1926, and were supplied principally by Canada; imports from France declined by about three-quarters. Druggists' rubber sundries to the value of $168,951 were imported in 1926, coming very largely from the United Kingdom.

TEXTILES AND CLOTHING

SUMMARY.—The year 1926 proved difficult for the cotton and wool manufacturing industries, but was fairly satisfactory in all other textile industries. Consumption of raw cotton, rayon, and raw silk increased, while that of wool declined. Operations of cotton spindles, worsted spindles, and narrow silk looms were slightly higher than in 1925. In cotton manufacturing the number of spindle hours exceeded the total for 1925 by 2.5 per cent. Domestic production of wool increased 6.3 per cent while imports declined 11 per cent and reported consumption of wool fell off about 2.6 per cent. Deliveries of raw silk to the mills registered a small gain over 1925 and rayon production increased 27 per cent. Trade in both knit goods and wearing apparel were generally good for knit goods and fair for other branches of wearing apparel.

Prices of raw cotton showed only minor fluctuations during the first three quarters of 1926, but dropped sharply in October and continued fairly steady at new low levels for the balance of the year. Cotton yarn prices moved in sympathy with raw cotton but cloth prices held fairly steady until the last quarter of 1926 when they declined gradually. Raw wool prices were fairly stable during 1926 but closed the year somewhat lower. Wool yarn prices, although slow in reflecting changes in raw-material prices, followed the general trend and cloth prices also declined. Prices of cotton and rayon hosiery were lower than in 1925 while those of silk hosiery were fairly stable. Raw silk prices displayed a downward tendency and prices of rayon were also reduced in November.

Table 1.—Textiles Summary

[Price of cotton and wool in cents per pound; silk and rayon in dollars per pound; print cloth in cents per yard. All data are for calendar years]

ITEM	1914	1921	1922	1923	1924	1925	1926
Raw cotton, 1,000 bales: [1]							
Produced	15, 906	7, 978	9, 729	10, 171	13, 639	16, 123	17, 755
Exported	6, 320	6, 474	6, 114	5, 279	6, 795	8, 532	9, 048
Consumed by mills	5, 449	5, 407	6, 088	6, 521	5, 522	6, 433	6, 687
Spot price, New York	12. 1	15. 1	21. 2	29. 3	28. 7	23. 5	17. 5
Number of cotton spindles in place, thousands	32, 744	36, 618	36, 946	37, 409	37, 804	37, 929	37, 586
Cotton spindle hours, millions	(2)	(2)	92, 701	99, 508	80, 275	94, 600	97, 000
Per cent of capacity	(2)	(2)	93. 5	98. 9	78. 5	92. 9	95. 4
Cotton manufactures:							
Production, 1,000 dollars	701, 301	1,330,263	(2)	2, 010, 141	(2)	1, 819, 886	(2)
Exports, 1,000 dollars	50, 093	117, 235	138, 702	138, 045	132, 711	148, 239	131, 057
Imports, 1,000 dollars	60, 313	75, 430	87, 070	100, 153	90, 914	79, 271	67, 159
Price of print cloth (27-inch, 64 by 60, 7.60-yard)	3. 0	5. 1	6. 6	7. 5	6. 8	6. 6	5. 2
Wool, 1,000 pounds:							
Produced	290, 192	283, 629	263, 713	268, 196	279, 375	292, 362	310, 901
Imported	256, 501	316, 605	366, 538	388, 345	262, 655	336, 646	299, 451
Price, Ohio ⅜-blood (56's)	26	28	46	56	57	58	46
Per cent activity of machinery: [3]							
Woolen spindles	(2)	72	87	92	85	84	73
Worsted spindles	(2)	82	79	92	66	66	69
Carpet looms	(2)	51	77	82	66	72	63
Wool manufactures:							
Production, 1,000 dollars	464, 250	888, 558	(2)	1, 312, 719	(2)	1, 198, 721	(2)
Exports, 1,000 dollars	12, 480	9, 903	6, 608	8, 733	7, 090	5, 873	4, 979
Imports, 1,000 dollars	44, 101	51, 218	59, 414	69, 118	69, 310	73, 901	70, 667
Raw silk, imports, 1,000 pounds	25, 650	45, 355	50, 712	49, 482	51, 281	63, 764	66, 422
Price, Kansai No. 1	3. 69	6. 03	7. 22	8. 23	5. 92	6. 34	5. 94
Silk manufactures:							
Production, 1,000 dollars	254, 011	583, 419	(2)	761, 322	(2)	808, 979	(2)
Exports	2, 409	9, 672	11, 824	11, 136	14, 148	18, 182	17, 788
Imports	29, 960	48, 276	37, 413	44, 597	37, 699	36, 719	40, 570
Rayon, 1,000 pounds:							
Yarns and sheets (excluding fabrics), production	2, 445	15, 000	24, 406	36, 153	37, 720	51, 792	65, 750
Imports of rayon yarns	2, 527	3, 276	2, 116	3, 029	1, 954	5, 441	9, 351

[1] Data do not include linters, except for exports in which linters are a comparatively small proportion.

[2] Not available. [3] Based on maximum, single-shift capacity. No comparable figures available for 1914.

POSITION OF THE TEXTILE INDUSTRIES IN GENERAL

The broad group of textile industries may be divided into three subgroups, namely, industries making or aiding in the manufacture of textile fabrics, those making wearing apparel from purchased fabrics, and those making other commodities from purchased fabrics. Industries in the second and third subgroups use as their principal materials the products of the first subgroup. Moreover, even within a single industry there is sometimes considerable duplication in value of products owing to a similar cause. The principal divisions of the first subgroup, ranked according to value of products, are: Cotton manufactures; wool manufactures; knit goods; silk manufactures; and manufactures of vegetable fibers (other than cotton and rayon).

In 1925 textiles and their products ranked second only to food and kindred products among the 16 general groups of manufacturing industries from the standpoint of gross value of products, and ranked first in number of wage earners, total wages paid, and in value added to materials by manufacture.

The total value of textiles and their products—which involves much duplication—in 1925 was $9,122,858,000, a decrease of 3.6 per cent as compared with the output for 1923 but an increase of 31 per cent over the value of production in 1921 and of 165 over that reported for 1914, when the cost of raw materials used in the textile industry and the unit values of the finished products were in most cases considerably lower than in 1925. The total for 1925 comprised the following: Textile-mill products, $5,342,617,000; wearing apparel made from purchased fabrics, $3,239,978,000; and other articles made from purchased fabrics, $540,263,000. Compared with production in 1923, these figures represent decreases of 3 per cent and 6 per cent, respectively, for the first two subgroups but an increase of 10 per cent for the third. The textile and related industries employed 1,627,000 wage earners in 1925, which was 5 per cent less than in 1923, and value added to materials by manufacture was $3,774,808,000, 7 per cent less than two years earlier.

Progress in Simplification.

While it is recognized that commodities which are affected by style, art, design, or true expression of individuality are not generally susceptible to simplification, it is nevertheless true that after analyzing sales, a number of manufacturers have adopted simplified lines and have been convinced that it pays. With more regard for usefulness and economy, and less insistence on frequent and extreme variety, manufacturers could operate more economically and merchants would have fewer stocks go dead on their hands. A more sensible or uniform distribution of demand throughout the year is a problem which lies largely with the public. In the textile field a simplified-practice recommendation has been adopted for both cotton and woolen blankets, covering a reduction of sizes from 78 to 12, and a recommendation has been in effect for over two years covering a reduction in the number of widths and weights of wide and sail cotton duck from 460 to 90.

At the close of the year studies were being conducted by the manufacturers of hospital linen and twine with the view of developing tentative recommendations for the consideration of these industries.

Suggestions have been made that simplification would be desirable in such fields as fabric belting, crashes and towels, woven webbing, cotton sheeting, shirts, and pile fabrics. Work progressed slowly on programs affecting bookbinding cloths, floor coverings, and manila rope.

Table 2.—Census Statistics of the Textile Industries

Note.—The value of products for the group as a whole, and to some extent also for the subgroups, involves duplication owing to the use of products of one branch as material for another.

Industry	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
The group as a whole:							
1914	23, 364	1, 506, 197	2, 717, 369	675, 902	2, 014, 099	3, 445, 481	1, 431, 382
1919	28, 457	1, 610, 067	3, 248, 456	1, 481, 183	5, 379, 557	9, 211, 190	3, 831, 633
1921	25, 960	1, 509, 789	(1)	1, 472, 390	3, 801, 252	6, 956, 714	3, 155, 462
1923	26, 767	1, 715, 361	3, 783, 504	1, 743, 851	5, 394, 648	9, 462, 634	4, 067, 986
1925	24, 433	1, 627, 141	3, 986, 136	1, 654, 013	5, 348, 050	9, 122, 858	3, 774, 808
Textile-mill products:							
1914	5, 942	950, 880	2, 522, 862	404, 606	1, 185, 091	1, 935, 344	750, 253
1919	7, 143	1, 052, 327	3, 024, 486	910, 048	3, 258, 527	5, 481, 884	2, 223, 357
1921	7, 241	993, 557	(1)	896, 373	2, 136, 803	3, 896, 449	1, 759, 646
1923	7, 816	1, 164, 638	3, 556, 440	1, 122, 752	3, 213, 272	5, 527, 558	2, 314, 286
1925	7, 470	1, 110, 209	3, 748, 885	1, 066, 262	3, 234, 035	5, 342, 617	2, 108, 583
Wearing apparel made from purchased fabrics:							
1914	14, 953	510, 595	117, 911	250, 114	673, 013	1, 297, 273	624, 260
1919	18, 778	507, 700	131, 965	526, 955	1, 745, 931	3, 198, 147	1, 452, 216
1921	16, 784	473, 574	(1)	534, 312	1, 424, 284	2, 710, 657	1, 286, 373
1923	16, 904	499, 413	132, 317	568, 139	1, 852, 229	3, 443, 940	1, 591, 711
1925	14, 862	465, 583	119, 158	533, 924	1, 739, 376	3, 239, 978	1, 500, 602
Other articles made from purchased fabrics:							
1914	2, 469	44, 722	76, 596	21, 182	155, 995	212, 864	56, 869
1919	2, 536	50, 040	92, 005	44, 180	375, 099	531, 159	156, 060
1921	1, 935	42, 658	(1)	41, 705	240, 165	349, 609	109, 444
1923	2, 047	51, 310	94, 747	52, 961	329, 147	491, 137	161, 990
1925	2, 101	51, 349	118, 093	53, 827	374, 640	540, 263	165, 623
1925 MAJOR INDUSTRIES							
Cotton goods	1, 366	445, 184	2, 236, 363	353, 883	1, 077, 153	1, 714, 368	637, 215
Knit goods	1, 987	186, 668	176, 630	168, 683	453, 926	809, 960	356, 034
Silk manufactures	1, 659	132, 509	212, 609	142, 734	484, 123	808, 979	324, 857
Woolen goods	503	67, 056	193, 080	82, 436	219, 618	361, 524	141, 906
Worsted goods	329	98, 168	377, 215	108, 835	400, 784	596, 266	195, 483
Carpets and rugs, wool, other than rag	69	33, 886	63, 008	43, 383	104, 196	188, 903	84, 707
Cordage and twine	118	15, 400	77, 563	14, 019	66, 848	100, 448	33, 600
Dyeing and finishing textiles	697	70, 749	252, 701	83, 983	244, 700	432, 537	187, 837
Clothing, men's, n. e. s	4, 000	174, 332	44, 749	203, 847	557, 471	1, 087, 238	529, 767
Shirts	840	49, 864	13, 884	35, 674	129, 754	225, 963	96, 209
Clothing, women's, n. e. s	6, 127	126, 466	24, 316	175, 045	724, 299	1, 293, 705	569, 406
Millinery and lace goods, n. e. s	2, 443	53, 603	11, 986	66, 551	153, 386	309, 856	156, 471
Bags, other than paper, not made in textile mills	162	11, 404	15, 295	9, 332	150, 102	175, 082	24, 980

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

COTTON GOODS

SUMMARY.—During 1926 the cotton-goods industry and trade passed through a period of readjustment. Business was generally quiet during the first six months of the year with buying confined to immediate requirements. A slight improvement took place during July and August but in September activity again slackened on account of the uncertainty regarding the size of the cotton crop. The necessity for replenishing depleted stocks of goods, however, led to the placing of a considerable volume of orders during September with the result that when the break in cotton prices occurred at the end of the month most of the mills had forward orders for several months. Business was only fair during the last quarter, although there were signs of reviving demand at the close of the year. Compared with 1925, active spindle hours for the United States as a whole registered an increase of 2.5 per cent and cotton consumption of almost 4 per cent. The aggregate number of active spindle hours in the cotton-growing States in 1926 exceeded that of 1925 by 6.4 per cent but in New England fell 2.9 per cent below 1925.

Prices of raw cotton fluctuated during the first three quarters of the year, but the trend was downward. Following reports of an unusually large crop of American cotton, prices dropped precipitately from an average of 17 cents per pound in September to 13.2 cents for October and to 12.8 cents for the last two months of the year. Yarn prices generally moved in sympathy with raw-cotton quotations while cloth prices were fairly steady during the first three quarters but declined gradually in the last quarter of the year.

Exports of cotton manufactures during 1926 decreased 12 per cent in value and imports declined 15 per cent as compared with 1925. Exports of cotton cloth fell off 6 per cent in quantity and 12 per cent in value from 1925 totals while imports recorded a decrease of 44 per cent in quantity and 38 per cent in value. Data as to production, prices, and exports of raw cotton are given in the section on agricultural products.

GENERAL POSITION AND CHARACTER

The cotton-manufactures industry comprises three branches—cotton goods, cotton small wares, and cotton-lace goods. The cotton-goods branch, by far the most important, embraces mills engaged primarily in any of the processes preparatory to spinning, in spinning, or in the weaving of piece goods. In the United States the finishing processes of bleaching, dyeing, and printing are mainly carried on in separate plants. While most of the mills spin yarn for their own use, a considerable number also spin yarn for sale to manufacturers of knit goods, small wares, insulated wire, and various other articles.

Census Statistics.

As shown by Table 3, the cotton-goods industry experienced a steady growth from census to census between 1899 and 1919. In the latter year prevailing high price levels carried the value of production up to the record figure of $2,125,272,000, although the quantity of woven goods produced fell below the total for 1914. The effect of postwar deflation was reflected in the value of the output for 1921 when the volume of woven goods exceeded that of 1919 but the value of all products dropped off over $800,000,000. In 1923 the industry recovered from the depression of the preceding census year and reported a total production approaching in value and considerably exceeding in quantity that of 1919 when prices were much higher. The output in 1923, however, proved to be greater than the consumptive requirements of the domestic market with a resulting reduction in activity in 1924 and 1925. The value of production in 1925 declined almost 10 per cent as compared with that of 1923 but the decrease in quantity was somewhat less marked.

Table 3.—The Cotton-Goods Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899 [1]	973	297,929	789,858	$85.126,310	$173,441,390	$332,806,156	$159,364,766
1909 [1]	1,208	371,182	1,286,105	129,789.717	364,013,504	615,217,702	251,204,198
1914	1,179	379,366	1,563,823	146,129,628	431,602,540	676,569,115	244,966,575
1919	1,288	430,966	1,836,298	355,474,937	1,277,785,597	2,125,272,193	847,486,596
1921	1,328	412,058	(2)	328,226,744	707,442,097	1,278,220,831	570,778,734
1923	1,375	471,503	2,153,299	396,602,644	1,147,372,215	1,901,125,703	753,753.488
1925	1,366	445,184	2,236,363	353,882,870	1,077,152,614	1,714,367,787	637,215,173
Per cent change from 1923	−0.6	−5.6	+3.9	−10.8	−6.1	−9.8	−15.5

[1] The figures for years 1899 and 1909 are not strictly comparable with those for 1914 and later years, for the reason that the manufacture of cotton-lace goods was included partly in the cotton-goods and partly in the cotton small-wares branch of the industry at censuses prior to 1914.

[2] Not called for in schedule for 1921.

Source: Bureau of the Census.

Increasing Importance of South.

Although there are cotton mills in 30 States, the industry is confined principally to New England and the cotton-growing States (mainly those lying along the Atlantic seaboard). Of the 1,366 establishments reporting in 1925, there were 809 located in the cotton-growing States, 332 in New England, and 225 in all other States. The number of establishments in cotton-growing States increased as compared with 1923, while the number in New England and in all other States was smaller.

Of a total production in the cotton-goods industry valued at $1,714,368,000 in 1925, the output of the mills in the cotton-growing States accounted for 54.2 per cent, the production of New England mills for 35.5 per cent, and that of mills in other States for 10.3 per cent. (Table 4.) In 1923, the first census year in which the value of the output of southern mills exceeded that of New England, 51.5 per cent of the total value of production was credited to the cotton-growing States, 37.9 per cent to New England, and 10.6 per cent to all other States.

Share of the Most Important States.

In point of value of production in 1925 Massachusetts succeeded in retaining its former lead with 20.2 per cent of the total, while North Carolina stood in second place with 18.4 per cent. The difference between the production of these two States has been considerably reduced since 1921, when Massachusetts was credited with 24.6 per cent of the total production and North Carolina with 14.9. In 1923 the percentages were 21.9 for Massachusetts and 17.2 for North Carolina. Production in South Carolina, which ranks third in importance in the cotton-goods industry, increased in value from 11.5 per cent of the total United States output in 1921 to 12.8 in 1923 and to 13.5 in 1925. The relative importance of the North and the South and the position of the leading States are shown in Table 4.

Table 4.—Geographical Distribution of Cotton-Goods Industry

Section and State	Number of establishments			Wage earners (thousands)			Value of products (thousands of dollars)		
	1921	1923	1925	1921	1923	1925	1921	1923	1925
Cotton-growing States	758	768	809	193	239	247	561, 816	978, 283	929, 107
New England States	337	357	332	187	196	165	575, 104	720, 472	607, 925
All other States	233	250	225	32	37	33	141, 301	202, 371	177, 336
Total	1, 328	1, 375	1, 366	412	472	445	1, 278, 221	1, 901, 126	1, 714, 368
Massachusetts	182	191	178	106	114	96	313, 830	415, 923	345, 864
North Carolina	343	351	364	66	81	84	190, 990	326, 572	316, 069
South Carolina	154	152	162	52	62	66	146, 495	243, 489	230, 665
Georgia	125	129	134	35	47	49	104, 984	201, 860	193, 424
Rhode Island	73	81	75	29	34	29	102, 408	126, 701	107, 708
Alabama	64	61	68	18	20	22	51, 150	86, 385	85, 983
Pennsylvania	124	127	115	10	13	12	58, 346	91, 686	79, 116
New Hampshire	17	17	17	23	19	15	51, 243	66, 166	57, 869
Connecticut	46	48	42	14	15	12	62, 987	61, 067	52, 100
Maine	15	16	16	13	14	12	41, 928	46, 702	41, 188

Source: Bureau of the Census.

PRODUCTION

Production of Woven Goods Declined in 1925.

More than 70 per cent of the total value of production in the cotton-goods industry represents woven goods, over 12 inches in width, the 1925 output of which amounted to 7,741,568,000 square yards, valued at $1,245,139,000, a decline of approximately 6 per cent in quantity and of 11 per cent in value compared with the 1923 production. The greater percentage of loss in the value to a large extent reflects the lower price of raw cotton in 1925. The average price of middling spot cotton at New York was $0.293 in 1923 and $0.235 in 1925. The production of only a few classes of cotton piece goods increased in 1925 as compared with 1923, the most important gains having been made in shirtings, cord fabrics for tires, twills and sateens, duck, and cloth composed of cotton and silk or other vegetable fiber and silk (except silk-striped shirtings), the last-named class including cotton and rayon mixtures.

Sheetings comprised approximately one-fifth of the total volume of woven goods (over 12 inches in width) produced in both 1923 and 1925. Print cloth ranked next in importance in 1925 from the standpoint of quantity, followed by twills and sateens, shirtings, cheese and tobacco cloth (including butter, bunting, and bandage cloth), ginghams, cotton flannels (canton flannel, flannelettes, and blanketings), lawns and similar muslins, drills, tire fabrics, duck, and denims. Table 5 shows the output of the principal classes of woven goods in the order of volume of production in 1925.

Table 5.—Principal Products of the Cotton-Goods Industry

[Quantity of woven goods in thousands of square yards; yarns in thousands of pounds; value in thousands of dollars]

Product	United States				New England States[1]		Cotton-growing States[1]	
	1923		1925		1923	1925	1923	1925
	Quantity	Value	Quantity	Value	Quantity			
Woven goods (over 12 inches in width), total	**8, 264, 220**	**1, 398, 902**	**7, 741, 568**	**1, 245, 139**	**3, 143, 581**	**2, 607, 368**	**4, 767, 309**	**4, 842, 005**
Sheetings	1, 695, 520	208, 338	1, 638, 169	180, 357	329, 036	270, 166	1, 305, 829	1, 318, 671
Print cloth	1, 578, 196	144, 054	1, 166, 374	98, 453	[2] 544, 160	257, 097	[2] 1,012,068	906, 455
Twills and sateens	489, 380	91, 589	532, 831	84, 133	288, 704	274, 709	160, 480	227, 711
Shirtings, including silk-striped and rayon-striped	341, 225	72, 335	455, 397	75, 757	214, 252	156, 852	115, 444	295, 393
Tobacco, cheese, butter, bunting, and bandage cloth	402, 312	20, 110	451, 633	16, 269	254, 833	245, 831	137, 418	123, 937
Ginghams	571, 665	99, 698	356, 476	57, 591	[2] 249, 726	[2] 145, 493	[2] 288, 218	[2] 184, 371
Canton flannel, flannelettes, and blanketings	381, 397	69, 635	340, 416	53, 607	189, 208	156, 002	192, 187	184, 414
Lawns, nainsooks, cambrics, and similar muslins	367, 209	57, 277	326, 087	43, 323	268, 066	215, 967	87, 502	[3] 105, 499
Drills	303, 421	46, 762	286, 115	42, 389	12, 931	8, 385	[3] 277, 835	[2] 265, 524
Tire fabrics, total	226, 555	106, 080	242, 126	105, 626	97, 743	90, 937	86, 218	112, 976
Tire duck	68, 259	42, 324	40, 762	16, 629	36, 812	10, 657	18, 078	28, 899
Cord	100, 727	39, 632	176, 964	80, 479	55, 723	70, 903	16, 486	73, 681
All other	57, 569	24, 124	24, 400	8, 519	5, 208	9, 377	51, 653	10, 396
Duck, ounce and numbered	167, 084	57, 163	193, 334	53, 827				
Denims	225, 640	60, 949	180, 492	46, 092	[3] 34, 802	22, 950	186, 778	[3] 156, 357
Cloth composed of cotton and silk or other vegetable fiber and silk (except silk-striped shirtings)	150, 848	51, 323	177, 107	51, 671	131, 348	147, 367	10, 478	27, 405
Towels and toweling, bath mats, and wiping and polishing cloths, total	122, 646	36, 693	126, 566	38, 150	6, 418	8, 443	87, 415	96, 323
Turkish	47, 446	16, 125	50, 666	18, 253	(4)	(4)	36, 393	42, 885
All other	75, 200	20, 568	75, 903	19, 897	(4)	(4)	75, 200	53, 439
Voiles	134, 709	19, 189	124, 479	14, 438				
Osnaburgs	109, 101	19, 539	118, 069	18, 449	3, 789	(4)	101, 730	116, 675
Bagging and bags	161, 917	19, 218	107, 724	12, 665				
Blankets	88, 060	24, 713	92, 077	29, 548				
Bedspreads and quilts	35, 691	13, 552	52, 637	16, 703	23, 518	24, 983	11, 287	26, 130
Cotton table damask, in the piece or otherwise	40, 905	10, 852	53, 468	12, 450	8, 076	24, 576	31, 876	28, 604
Ticks	53, 499	11, 453	48, 362	10, 305	12, 898	10, 826	36, 359	33, 670
Sheets and pillowcases	32, 099	6, 067	41, 416	6, 728				
Plushes, velvets, velveteens, etc	27, 711	35, 621	33, 478	40, 679	7, 501	7, 594	1, 822	(4)
Pillow tubing	17, 286	3, 347	30, 529	5, 473				
Cottonades and cotton worsteds	20, 952	6, 167	29, 131	7, 903	3, 159	2, 248	13, 972	20, 638
Corduroys	27, 389	12, 043	21, 593	9, 553				
Tapestries	20, 684	20, 899	15, 737	17, 390				
Yarns for sale	620, 725	348, 685	626, 357	313, 060	113, 310	109, 123	451, 635	490, 781

[1] Details for the production of the classes not shown here by regions are not available.
[2] Excludes statistics for one establishment to avoid disclosing its operations.
[3] Excludes statistics for two establishments to avoid disclosing their operations.
[4] Statistics can not be shown without disclosing individual operations.

Source: Bureau of the Census.

The 1925 production of woven goods (over 12 inches in width) in the cotton-growing States amounted to 4,842,005,000 square yards, valued at $653,001,000, and to 2,607,368,000 square yards, with a value of $459,897,000, in New England. Compared with 1923, the foregoing figures represent an increase of 1.6 per cent in the quantity but a decline of 7.6 per cent in the value for the cotton-growing States and a decrease of 17 per cent in quantity and of 18 per cent in value for New England. The average unit price of the goods woven dropped from 14.8 cents in 1923 to 13.5 in 1925 in the South and from 17.9 to 17.6 in New England. In 1925 the output of the southern mills accounted for 62 per cent of the total volume and for 52 per cent of the value of woven goods produced in the entire United States, while that of New England represented 34 and 37 per cent, respectively, of the total. The year 1923 was the first census year in which the value of goods produced in the South exceeded that of New England; the margin of over $143,000,000 in 1923 increased to $193,000,000 in 1925.

Cotton Small Wares and Cotton Lace-Goods Production.

Establishments engaged primarily in the manufacture of cotton small wares reported products valued at $74,675,000 in 1925, an increase of 2 per cent over 1923. The principal products of this industry are narrow woven fabrics, not over 12 inches in width, and braids of every description, made principally from purchased yarns. In 1925 the value of the principal products was as follows: Elastic webbing, $24,307,000; belting, $2,583,000; all other woven cotton small wares, $18,143,000; braided cotton small wares, $12,493,000; all other cotton small wares, $4,467,000; and miscellaneous products, $12,682,000. In addition, cotton small wares are manufactured by establishments engaged primarily in other industries. Such secondary products represented 16 per cent of the total value of products reported by establishments classified under the "cotton small wares industry" proper in 1923.

Machine-made laces and nets, especially lace curtains, are the principal products of the lace-goods branch, the output of which in 1925 was valued at $30,844,000, a decrease of 14 per cent as compared with 1923.

Rank in World Industry.

In 1926 the United States was credited with possessing 23 per cent of the world's total cotton spindles, being exceeded only by the United Kingdom, which led with 35 per cent. Germany and France each have only about one-fourth as many spindles as the United States.

Table 6.—World's Cotton Spindles [1]

[For years ended July 31; all figures in thousands. No adjustment of pre-war figures to postwar boundaries has been made]

Country	1900	1914	1925	1926
Total	**105,681**	**146,397**	**161,832**	**164,210**
United States	19,472	32,107	37,937	37,586
Per cent	18.4	21.9	23.4	22.9
Canada	550	965	1,319	1,319
Mexico	(2)	(2)	814	830
United Kingdom	45,500	56,300	57,116	57,286
Per cent	43.0	38.5	35.3	34.9
France	5,500	7,410	9,428	9,511
Germany	8,000	11,550	9,500	10,480
Russia	7,500	9,160	7,246	7,246
Italy	1,940	4,620	4,771	4,833
Czechoslovakia	(3)	(3)	3,471	3,568
Spain	2,615	2,210	1,813	1,817
Belgium	920	1,530	1,788	1,854
Switzerland	1,550	1,380	1,517	1,529
Poland	(4)	(4)	1,172	1,375
Austria-Hungary	3,300	4,970	[5] 1,038	[5] 1,032
Other Europe	1,095	1,895	3,380	3,502
India	4,945	6,500	8,500	8,510
Japan	1,274	2,750	5,292	5,573
China	550	1,000	3,350	3,436
Brazil	450	1,250	1,950	2,493
All other	520	800	430	430

[1] Figures for 1900 and 1914 are for active spindles; for 1924, 1925, and 1926, for both active and idle.
[2] Not available.
[3] Included in Austria-Hungary.
[4] Included in Russia.
[5] Austria only.

Source: Bureau of the Census.

Activity of Equipment.

No production figures for the cotton-goods industry will be compiled for 1926, but spindle activity and cotton consumption (Tables 7 and 8) afford a fairly accurate basis for comparing the output in 1926 with that of 1925. During the calendar year 1926 the cotton-spinning industry of the United States operated at 95.4 per cent of its single-shift capacity (based on an activity of about 8.78 hours per day), the monthly average of active spindles was 32,348,000, the number of active spindle-hours aggregated 97,000,000,000, and mills consumed 6,687,000 bales of raw cotton (exclusive of linters). Compared with 1925, spindle-hours during 1926 registered an increase of 2.5 per cent and cotton consumption recorded a gain of almost 4 per cent. The 1926 figures exceeded the total spindle-hours and cotton consumption of 1924 by 20.8 and 21.1 per cent, respectively, but spindle-hours in 1926 fell 2.5 per cent below those of 1923 while cotton consumption in 1926 was 2.5 per cent in excess of that of 1923.

Table 7.—Cotton Spindle-Hours and Per Cent of Capacity

NOTE.—Per cent of capacity represents ratio between (1) the actual number of spindle-hours, including overtime, double shifts, and part time, and (2) the total number of spindles in place multiplied by the number of hours per month in a single shift at normal full working time.

Month	Spindle-hours in entire United States (millions)						Per cent of capacity					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Total	(1)	**92,701**	**99,508**	**80,275**	**94,600**	**97,000**	(1)	**93.5**	**98.9**	**78.5**	**92.9**	**95.4**
January	(1)	7,929	9,274	8,347	8,554	8,356	(1)	96.6	107.6	95.5	97.2	98.6
February	(1)	7,123	8,450	7,100	7,893	8,121	(1)	93.5	109.6	87.3	100.5	103.2
March	(1)	7,770	9,536	7,071	8,615	9,169	(1)	89.3	108.3	82.4	100.0	102.2
April	(1)	6,642	8,780	6,776	8,520	8,345	(1)	83.5	109.2	80.0	100.2	98.2
May	(1)	7,497	9,303	5,908	7,932	7,503	(1)	87.8	107.6	67.5	93.8	88.9
June	(1)	7,648	8,391	5,344	7,686	7,606	(1)	91.2	98.8	64.6	89.2	88.4
July	(1)	7,040	7,144	5,182	7,310	6,750	(1)	87.2	87.4	60.3	84.6	78.7
August	7,239	8,029	7,543	5,434	6,935	7,489	83.8	91.9	85.4	63.0	80.1	87.4
September	7,392	7,781	7,506	6,472	7,107	8,248	90.6	94.2	93.6	76.4	83.8	98.5
October	7,584	8,279	8,407	7,655	7,963	8,370	92.0	99.2	95.8	86.2	89.5	98.9
November	7,711	8,728	8,022	7,143	7,825	8,480	98.2	106.5	96.7	87.8	96.0	101.2
December	7,735	8,236	7,152	7,841	8,261	8,563	92.7	101.4	87.0	90.7	99.4	100.3

[1] Data not available.

Source: Bureau of the Census.

Chart I.—COTTON SPINNING ACTIVITY: PER CENT OF SINGLE-SHIFT CAPACITY

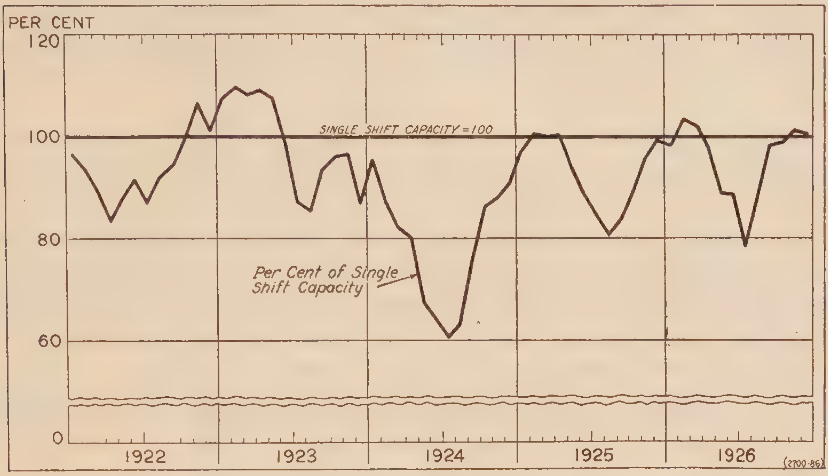


Table 8.—Cotton Consumption and Spindle-Hours, by Quarters

NOTE.—Cotton consumed includes both domestic and foreign cotton. Linters are not included. See also headnote, Table 9, page 481.

Section and quarter	Cotton consumed (thousands of bales) [1]					Spindle-hours (millions)				
	1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
United States, total	**6,088**	**6,521**	**5,522**	**6,433**	**6,687**	**92,701**	**99,508**	**80,275**	**94,600**	**97,000**
January-March	1,519	1,801	1,573	1,728	1,783	22,821	27,259	22,518	25,061	25,646
April-June	1,448	1,739	1,243	1,622	1,613	21,787	26,474	18,029	24,138	23,453
July-September	1,478	1,441	1,143	1,418	1,533	22,849	22,193	17,089	21,351	22,488
October-December	1,642	1,540	1,563	1,664	1,758	25,244	23,581	22,640	24,049	25,413
Southern States, total	**3,933**	**4,229**	**3,805**	**4,377**	**4,757**	**50,932**	**55,949**	**49,655**	**57,831**	**61,520**
January-March	965	1,132	1,074	1,169	1,248	12,317	14,697	13,563	15,235	16,001
April-June	963	1,107	862	1,096	1,134	12,344	14,629	11,280	14,687	14,676
July-September	970	965	792	962	1,105	12,770	13,059	10,769	13,167	14,627
October-December	1,035	1,025	1,076	1,149	1,270	13,500	13,564	14,043	14,742	16,216
New England, total	(2)	**1,945**	**1,434**	**1,708**	**1,613**	**37,034**	**39,009**	**27,184**	**32,655**	**31,720**
January-March	(2)	569	421	470	448	9,287	11,218	7,966	8,781	8,610
April-June	(2)	540	319	436	401	8,302	10,614	5,978	8,361	7,830
July-September	(2)	402	292	375	355	8,940	8,233	5,639	7,268	7,040
October-December	(2)	434	402	427	408	10,506	8,944	7,601	8,245	8,241
All other States, total	(2)	**347**	**284**	**348**	**318**	**4,735**	**4,550**	**3,436**	**4,114**	**3,760**
January-March	(2)	100	78	89	87	1,217	1,344	989	1,046	1,035
April-June	(2)	92	62	90	78	1,141	1,231	770	1,089	947
July-September	(2)	74	58	81	73	1,139	901	681	916	821
October-December	(2)	81	85	87	80	1,238	1,074	995	1,062	957

[1] Quantities are given in running bales, except that round bales are counted as half bales and foreign cotton in equivalent 500-pound bales.

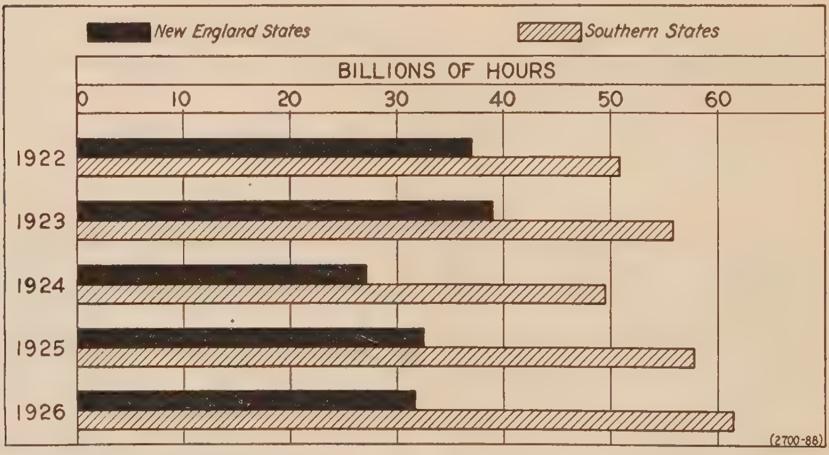
[2] Not separately shown, but consumption in all Northern States in 1922 was: January-March, 554,174 bales; April-June, 484,840; July-September, 508,540; October-December, 607,438; total, 2,154,992.

Source: Bureau of the Census.

For the cotton-growing States the aggregate number of active spindle hours in 1926 was 61,520,000,000, an increase of 6.4 per cent over 1925, of 23.9 over 1924, and of 10 over 1923. Cotton consumption in the South (4,757,000 bales) represented a gain of 8.7 per cent over 1925, 25 over 1924, and 12.5 over 1923. In New England active spindle-hours totaled 31,720,000,000 in 1926, or 2.9 per cent less than in 1925, 16.7 per cent more than in 1924, and 18.7 per cent less than in 1923. New England mills consumed 1,613,000 bales of cotton in 1926, a decrease of 5.6 per cent compared with 1925, an increase of 12.5 per cent over 1924, and a decline of 17.1 per cent from 1923.

During January, 1926, the industry operated at 98.6 per cent of its single-shift capacity. During the next two months operations were at the rate of 103.2 and 102.2 per cent, respectively. A decline which set in during April continued until July when activity reached the low level (78.7 per cent) of the year, a rate slightly below the minimum for 1925 (80.1 per cent) but considerably higher than the low of 1924 (60.3 per cent). A revival which began in August continued until December when there was a slight recession in activity.

Chart II.—COTTON SPINDLE-HOURS IN NEW ENGLAND AND SOUTHERN STATES



Raw Cotton Consumption by Crop Years.

Statistics of cotton consumption are usually compiled for the cotton year ending July 31, but in the foregoing tables calendar year figures were given in order to permit comparisons to be made with other economic data. During the cotton years ending July 31, 1926, mills in the United States consumed 6,456,000 bales of cotton (exclusive of linters) which was 4.3 per cent more than in 1925 and was larger than any earlier postwar years, except 1923 and 1920. Table 9 shows the consumption of cotton (including linters) for the United States as a whole, for New England, and the South during representative years between 1870 and 1920 and for all years since 1920.

Table 9.—Cotton Spindles and Raw Cotton Consumption by Crop Years

Note.—The number of active spindles represents spindles operated at any time during the year, and without considering short or overtime or idle periods. The ratio of number active to number in place furnishes therefore little indication of the activity of the industry. The difference between the geographic distribution of spindles and that of cotton consumed is due to the fact that New England mills, on the average, make finer (smaller) yarns than the southern mills.

Cotton year [1]	Spindles in place (thousands)	Active cotton spindles (thousands)				Cotton consumed (thousands of bales) [2]				
		United States	New England	The South	Other States	United States			New England	The South
						Domestic	Foreign	Total [3]		
1870	(4)	7,132	5,498	328	1,306	(4)	(4)	797	551	69
1880	(4)	[5] 10,653	[5] 8.632	[5] 561	[5] 1,460	(4)	(4)	[5] 1,570	[5] 1,129	[5] 189
1890	(4)	14,384	10,934	1,570	1,880	(4)	(4)	2,518	1,502	539
1900	(4)	19,472	13,171	4,368	1,933	(4)	(4)	3,873	1,909	1,523
1905	24,078	23,687	14,203	7,631	1,853	(4)	(4)	[6] 4,279	[6] 1,753	[6] 2,140
1910	28,929	28,267	15,735	10,494	2,038	4,643	156	4,799	2,016	2,292
1913	32,150	31,520	17,311	12,227	1,981	5,553	233	5,786	2,211	2,961
1920	35,834	35,481	18,287	15,231	1,963	6,345	417	6,762	2,419	3,714
1921	36,618	36,047	18,388	15,709	1,951	5,193	216	5,409	1,645	3,152
1922	36,946	35,708	17,939	15,906	1,863	6,252	297	6,549	1,853	3,978
1923	37,409	36,260	18,054	16,310	1,896	6,968	344	7,312	2,086	4,489
1924	37,804	35,849	17,066	16.944	1,839	5,890	328	6,217	1,567	4,051
1925	37,929	35,032	15,975	17,292	1,765	6,576	276	6,852	1,675	4,460
1926	37,586	34,750	15,526	17,574	1,650	6,980	280	7,260	1,672	4,796
1927 (first half)	37,374	32,294	13,523	17,282	1,489	3,681	148	3,829	799	2,478

[1] Prior to 1915, years ended Aug. 31, thereafter ended July 31.

[2] Including linters.

[3] Total includes New England, the South, and all other States. The figures for the latter amounted to 736,806 bales in 1923, 599,664 in 1924, 717,105 in 1925, and 792,329 in 1926.

[4] Not available.

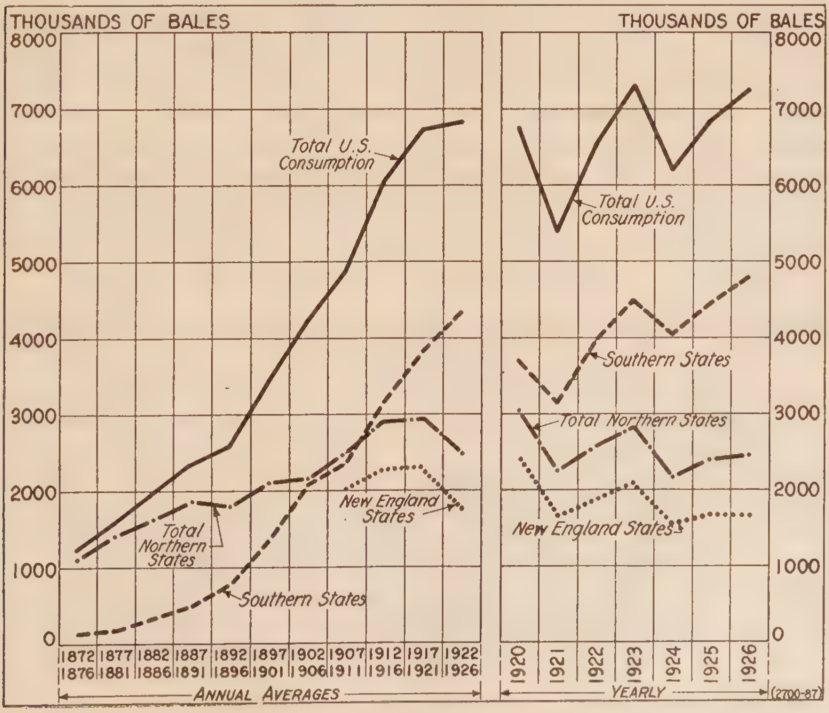
[5] Cotton mills only.

[6] Does not include foreign cotton.

Source: Bureau of the Census.

Chart III.—MILL CONSUMPTION OF COTTON IN NORTHERN AND SOUTHERN STATES

Note.—Cotton consumed includes linters and foreign cotton. Figures represent cotton years, ending July 31.



Total world mill consumption for the cotton year ended July 31, 1926, is placed at 23,940,000 bales, an increase of 5.7 per cent over the preceding year and of 8.5 per cent over the pre-war year 1912-13. During the cotton year 1925–26 the proportion of the world's cotton consumed in the United States was 27 per cent which was slightly smaller than in either of the two preceding years. The share of the United Kingdom declined from 15 per cent in 1924–25 to 13 in 1925–26, but that of the Continent of Europe and Japan increased.

Table 10.—World Mill Consumption of Raw Cotton for Years Ending July 31

Country	Bales consumed (thousands)[1]								Per cent of total	
	1913	1920	1921	1922	1923	1924	1925	1926	1913	1926
Total	**22,055**	**19,300**	**16,905**	**19,990**	**21,325**	**19,982**	**22,640**	**23,940**	**100.0**	**100.0**
United States	5,575	6,485	4,905	5,910	6,666	5,681	6,191	6,456	25.3	27.0
United Kingdom	4,644	3,870	2,135	2,900	2,825	2,842	3,350	3,121	21.0	13.0
European continent	7,514	3,830	4,600	5,016	5,304	5,551	6,339	6,910	34.1	28.9
India	1,843	1,720	1,925	1,871	1,751	1,630	1,825	1,697	8.4	7.1
Japan	1,435	1,910	1,885	2,176	2,348	2,037	2,450	2,825	6.5	11.8
Canada	131	230	155	205	203	152	190	260	.6	1.1
Other countries	913	1,255	1,300	1,912	2,228	2,089	2,295	2,671	4.1	11.1

[1] Bales of about 478 pounds net. Exclusive of linters for the United States.

Source: Bureau of the Census.

PRICE MOVEMENT

Prices of raw cotton fluctuated during the first three quarters of 1926, but the general tendency was gradually downward, each monthly average with the exception of July and August being somewhat lower than that of the preceding month. (Table 11.) The year 1926 opened with spot middling cotton at New York quoted at 20.8 cents. Following reports of an unusually large crop of American cotton, prices of middling spot cotton in New York dropped precipitately from an average of 17 cents per pound in September to 13.2 cents for October. The November and December price was 12.8 cents. The maximum price for 1926 (21.25 cents) was registered on January 18 and the minimum (12.15 cents) on December 3.

Table 11.—Spot Prices of Middling Upland Cotton at New York by Calendar Years and Months

[In cents per pound. For annual averages by crop years see Table 39, p. 209]

Year	Price	Year	Price	Month	1920	1921	1922	1923	1924	1925	1926
1891–1895	7.8	1917	23.5	January	39.3	16.7	17.9	27.5	34.7	24.0	20.8
1896–1900	7.5	1918	31.8	February	38.8	13.9	18.1	29.0	31.9	24.7	20.6
1901–1905	10.1	1919	32.5	March	41.4	11.8	18.3	30.7	28.5	25.6	19.4
1906–1910	12.1	1920	33.9	April	42.4	12.1	18.1	29.0	29.9	24.4	19.2
1911–1915	11.9	1921	15.1	May	41.3	12.9	20.8	27.7	31.6	23.4	18.9
				June	39.3	12.0	22.1	28.4	30.0	24.2	18.6
1916–1920	27.2	1922	21.2	July	41.0	12.4	22.3	25.9	31.7	24.8	18.7
1921–1925	23.6	1923	29.3	August	36.0	13.9	21.9	25.5	29.3	23.8	18.7
1913	12.8	1924	28.7	September	30.1	20.4	21.5	28.6	24.4	23.6	17.0
1914	12.1	1925	23.5	October	22.6	19.7	22.8	30.1	24.5	22.0	13.2
1915	10.2	1926	17.5	November	19.0	18.2	25.6	35.0	24.3	20.8	12.8
1916	14.5			December	15.5	18.3	25.7	35.8	23.9	20.2	12.8

Source: Bureau of Labor Statistics, Department of Labor.

Yarn prices generally moved in sympathy with raw cotton prices during 1926. The trend was downward during the first six months. A slight recovery occurred in the third quarter, but the average for the period was lower than that of the June quarter. Coincident with the sharp drop in cotton prices during October, yarn prices began to decline and by the end of the year had fallen to the lowest levels since 1921.

Cotton cloth prices were fairly steady throughout the first three quarters of the year when only minor fluctuations were recorded. Even after the break in cotton prices the cloth market was slow in reflecting a change and the decline in prices was gradual and orderly. Quotations on 27-inch, 64 by 60, 7.60-yard print cloth dropped from 6 cents per yard for the first week of the year to 4.625 cents for the last week and prices of 36-inch, 48 by 48, 3-yard gray sheeting declined from 11.75 cents to 9 cents. (Tables 12 and 13.)

Table 12.—Wholesale Prices of Yarn and Cloth

[Yarn in cents per pound and cloth in cents per yard]

Yearly average, year, or quarterly average	Yarn carded, white, mulespun, northern 22/1, cones	Sheeting, gray, Pepperell, 36-inch, 3.75-yard.	Print cloth, 27-inch, 7.6-yard [1]	Bleached muslin, Fruit of the Loom, 36-inch	Drill, gray, Pepperell, 29-30-inch, 2.85-yard	Gingham, Amoskeag, 27-inch, 6.37-yard
1891-1895	20.6	5.6	3.1	7.7	5.8	5.8
1896-1900	18.9	5.3	2.6	6.6	5.5	4.7
1901-1905	20.5	6.1	3.1	7.7	6.5	5.3
1906-1910	23.5	7.1	3.8	9.4	7.8	6.1
1911-1915	22.5	6.8	3.3	8.5	7.8	6.5
1916-1920	54.1	16.2	8.9	21.7	20.0	16.0
1921-1925	42.1	13.7	6.5	17.7	15.7	12.5
1913	24.8	7.3	[1] 3.5	8.5	8.2	6.5
1920	70.3	21.8	12.6	34.4	29.1	22.1
1921	33.1	11.4	5.1	16.6	12.6	11.9
1922	39.7	12.5	6.6	17.1	13.7	12.8
1923	48.6	15.2	7.5	18.5	17.8	14.3
1924	47.4	15.5	6.8	18.3	18.1	12.2
1925	41.8	13.9	6.6	18.0	16.4	11.3
1926	35.8	12.3	5.2	16.7	12.7	9.0
1925						
January-March	43.2	14.8	6.9	[2] 18.1	16.5	10.8
April-June	40.7	14.5	6.5	[3] 18.1	16.5	11.5
July-September	42.0	13.0	6.6	18.1	16.5	11.5
October-December	41.3	13.3	6.4	17.8	16.0	11.5
1926						
January-March	39.5	13.3	5.9	17.3	14.8	9.0
April-June	36.0	12.8	5.1	16.7	12.7	9.0
July-September	35.8	12.0	5.1	16.6	12.3	9.0
October-December	32.0	11.1	4.8	16.1	11.2	9.0

[1] Previous to 1913 quotations are for a 28-inch print cloth, the 1913 price of which was 3.8 cents.

[2] Two months; no quotation available for March.

[3] June only; no quotation available for April and May.

Source: Bureau of Labor Statistics, Department of Labor.

Business in cotton cloth was generally quiet during the first quarter of 1926, at the end of which it became evident that production was proceeding at a rate much in excess of sales and market demand. In an endeavor to strengthen their position many mills in the South curtailed production over a period of 60 to 90 days beginning May 1 and by midsummer a reduction in output was apparent. Prices advanced and demand for gray goods improved during July and August. The uncertainty as to the cotton crop retarded trade during September but there was considerable buying for immediate needs with the result that when the break in cotton prices came at the end of the month, nearly all the mills had forward orders for two to four months. Business was only fair during the next two months, although prices held up remarkably well. Near the close of December trading improved, and there were indications of reviving demand.

During the summer of 1926 a movement began among cotton-goods manufacturers, jobbers, and commission merchants to popularize cotton dress goods by giving them a new style appeal. To this end style shows were held in which cotton garments were featured in an effort to convince consumers that cotton materials and designs of the present day were fully as attractive as the fabrics which had supplanted cotton goods in women's wear. The use of rayon in combination with cotton continued during 1926, and such combinations figured prominently in the style development of cotton goods.

Table 13.—Prices of Standard Cotton Cloths, in Cents per Yard

Cotton cloth	1911–1913	1921	1922	1923	1924	1925	1926	Jan.–Mar., 1926	Apr.–June, 1926	July–Sept., 1926	Oct.–Dec., 1926
Print cloth, 27-inch, 64 by 60, 7.60-yard	3. 31	5. 08	6. 82	7. 46	6. 78	6. 54	5. 20	5. 84	5. 11	5. 10	4. 73
Print cloth, 38½-inch, 64 by 60, 5.35-yard	4. 85	7. 71	8. 94	10. 20	9. 06	9. 22	7. 49	8. 34	7. 46	7. 46	6. 70
Print cloth, 39-inch, 80 by 80, 4.00-yard	6. 94	11. 39	12. 60	13. 61	13. 28	12. 70	10. 59	12. 24	10. 65	10. 12	9. 36
Gray sheeting, 36-inch, 56 by 60, 4.00-yard	5. 99	8. 58	10. 68	12. 14	11. 36	10. 43	9. 06	9. 90	9. 21	9. 04	8. 09
Gray sheeting, 40-inch, 48 by 48, 2.85-yard	7. 78	9. 86	12. 81	15. 62	14. 47	13. 20	11. 16	12. 19	11. 59	11. 10	9. 76
Gray sheeting, 36-inch, 48 by 48, 3.00-yard	7. 20	8. 54	12. 04	14. 42	13. 85	12. 72	10. 88	11. 73	11. 22	10. 92	9. 66
Bleached wide sheeting, class A, 10/4	25. 86	50. 73	52. 09	57. 48	56. 40	53. 28	48. 33	50. 38	49. 09	48. 05	45. 82
Drill, 30-inch, 2.85-yard	7. 93	10. 04	13. 08	15. 97	14. 87	13. 85	11. 61	12. 61	11. 84	11. 51	10. 50
Sateen, 39-inch, 64 by 104, 4.20-yard	7. 04	12. 30	15. 10	16. 71	13. 78	12. 82	11. 96	12. 27	11. 94	11. 71	11. 91
Denim, standard, 2.20-yard	11. 46	15. 67	19. 49	23. 83	21. 46	18. 91	15. 42	16. 94	15. 29	14. 87	14. 60
Gingham, 27-inch eastern standard staple	6. 19	12. 33	13. 82	14. 39	12. 21	11. 15	8. 94	9. 10	8. 92	8. 81	8. 92

Source: Fairchild Cotton Goods Index, Daily News-Record.

WAGES AND HOURS OF LABOR IN THE COTTON-GOODS INDUSTRY

A study of wages and hours of labor of employees in the cotton-goods manufacturing industry in the United States was recently made and a summary of the results published by the Bureau of Labor Statistics, Department of Labor. The information was compiled from records of 151 cotton mills located in the 12 leading cotton manufacturing States, in which, according to the Bureau of the Census, 92 per cent of the wage earners in the entire industry are employed. The 1926 averages cover 46,879 males and 36,103 females and the comparable data for 1924 are for 45,056 males and 32,939 females.

This survey showed that from 1924 to 1926 average full-time hours per week of males in all occupations increased from 53.5 to 53.8, those of females from 52.3 to 52.8, and those of males and females combined from 53 to 53.3. In the same period average earnings per hour of males decreased from 39 to 34.7 cents, earnings of females declined from 34.7 to 30.1 cents, and those of males and females combined from 37.2 to 32.8 cents. Average full-time earnings per week of males declined from $20.87 in 1924 to $18.67 in 1926, earnings of females from $18.15 to $15.89, and earnings in the industry as a whole from $19.72 to $17.48.

In 1924 the highest average earnings per hour of males in any occupation were those of mule spinners, 74.6 cents, and the lowest were those of spooler tenders, 19.2 cents. For females the hourly earnings ranged from 44.8 cents, earned by slubber tenders and beamer tenders, to 26.8 cents, earned by trimmers or inspectors. In 1926 hourly earnings of males ranged from 65.6 cents for mule spinners to 19 cents for spooler tenders; and earnings of female workers from 41.1 cents for beamer tenders to 24.6 cents for spooler tenders and trimmers or inspectors.

FOREIGN TRADE

Exports and Imports of Raw Cotton.

Exports of raw cotton in 1926 aggregated 9,048,000 bales, valued at $814,429,000, compared with 8,532,000 bales with a value of $1,059,751,000 in 1925, an increase of 6 per cent in quantity but a decline of 23 per cent in value (see section on cotton under "Agricultural Products"). Shipments to Europe amounted to 7,293,000 bales, valued at $665,311,000 in 1926, compared with 7,240,000 bales with a value of $905,180,000 in 1925. Belgium, France, Germany, Italy, Portugal, and Spain took more American cotton in 1926 than in 1925, but sales to other European countries, particularly to the United Kingdom, declined. Japanese purchases increased almost 25 per cent from a total of 1,003,000 bales in 1925 to 1,251,000 in 1926. China, hitherto a comparatively unimportant factor in this trade, bought 172,000 bales in 1926—over three times as much as in

1925, the increase being attributed to the fact that prices of American cotton have dropped to a point where the Chinese mills can afford to buy American cotton in preference to Indian and domestic cotton.

Imports of raw cotton, chiefly special types not produced in this country, amounted to 181,393,000 pounds, valued at $46,240,000 in 1926, compared with 156,680,000 pounds with a value of $52,775,000 in 1925, an increase of 15.8 per cent in quantity but a decline of 12.4 per cent in value. Egypt supplied 60.8 per cent of the cotton imported into the United States in 1926, against 63.5 per cent in 1925. The percentage of Egyptian cotton is larger than indicated because the bulk of the cotton imported from the United Kingdom (5,990,000 pounds in 1926) is of Egyptian origin. Mexico, British India, China, and Peru, in the order named, were other important sources of the 1926 cotton imports.

Foreign Trade in Cotton Manufactures Summarized.

Exports of cotton manufactures were valued at $131,057,000 in 1926, a decrease of 12 per cent compared with 1925. Cotton cloth is the most important item in the export trade in cotton manufactures, and in 1926 accounted for 57 per cent of the total. Compared with 1925 shipments, exports of yarn, thread, and cordage increased 11 per cent in quantity, while hosiery exports declined 14 per cent.

Imports of cotton manufactures declined in value from $79,271,000 in 1925 to $67,159,000 in 1926, a decrease of 15.3 per cent. Cotton cloth represented 24 per cent of the total value of imports of cotton manufactures and laces and embroideries 18 per cent. With the exception of knit gloves and wearing apparel, not knit, the values of all the important classifications in imports of cotton manufactures were smaller in 1926 than in 1925.

Values of imports and exports of cotton manufactures since 1871 are shown in Table 14.

Table 14.—Value of Imports and Domestic Exports of Cotton Semimanufactures and Manufactures

NOTE.—The changes in prices have greatly affected the value.

[In thousands of dollars]

Yearly average [1]	Imports	Exports	Year [1]	Imports	Exports	Year [1]	Imports	Exports
1871–1880	26,691	6,621	1911	66,997	40,852	1919	52,652	273,116
1881–1890	30,554	12,558	1912	65,153	50,770	1920	137,583	402,041
1891–1900	31,462	16,924	1913	66,066	53,744	1921	75,430	117,235
1901–1905	47,123	31,333	1914	70,705	51,467	1922	87,070	138,702
1906–1910	67,282	35,141	1915	46,205	71,973	1923	100,153	138,045
1911–1915	63,025	53,761	1916	53,751	129,347	1924	90,914	132,711
1916–1920	67,703	228,870	1917	53,825	158,819	1925	79,271	148,239
1921–1925	86,567	134,986	1918	40,701	181,029	1926	67,159	131,057

[1] Fiscal years to 1915, inclusive, calendar years thereafter.

Source: Bureau of Foreign and Domestic Commerce.

Table 15.—Imports and Exports of Principal Classes of Cotton Semimanufactures and Manufactures

NOTE.—Items omitted as to both quantity and value for 1910–1914 are not separately shown for those years, but are included in related classifications or in "All other cotton manufactures."

Class	Quantity in thousands [1]				Value in thousands of dollars [1]			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Imports, total	--------	--------	--------	--------	**67,413**	**90,914**	**79,271**	**67,159**
Cotton waste ---- pounds	39,598	33,664	36,393	29,736	1,918	3,244	3,727	2,147
Yarn and warps ---- do	7,395	3,733	3,619	3,661	4,178	4,489	5,316	4,315
Sewing thread, crochet and darning cotton ---- 100 yds	--------	36,994	29,902	21,890	--------	3,057	3,469	2,388
Cloth, total ---- square yards	53,893	177,386	109,249	60,680	9,041	37,703	26,424	16,258
Not bleached ---- do	4,235	114,730	75,397	33,115	493	21,889	15,423	6,839
Bleached ---- do	49,658	5,704	4,832	5,236	8,548	1,558	1,584	1,533
Colored, printed, dyed, etc., ---- square yards		56,952	29,020	22,329		14,257	9,417	7,887
Hosiery ---- dozen pairs	--------	531	563	497	3,613	1,409	1,942	1,612
Knit gloves ---- do	--------	1,365	1,659	2,111	--------	4,247	5,488	6,514
Other knit goods	--------	--------	--------	--------	917	291	294	291
Other wearing apparel	--------	--------	--------	--------	3,737	6,668	5,744	6,877
Laces and embroideries	--------	--------	--------	--------	35,910	20,106	14,603	12,086
All other	--------	--------	--------	--------	8,098	9,698	12,264	14,671
Exports, total	--------	--------	--------	--------	**44,877**	**132,711**	**148,239**	**131,057**
Cotton mill waste ---- pounds	62,273	65,617	77,048	66,788	3,833	7,616	8,721	6,078
Yarn, thread, and cordage ---- do	--------	18,368	27,536	30,453	621	10,719	15,115	15,464
Cloth, total ---- square yards [2]	398,574	477,815	543,317	513,300	27,052	78,204	85,012	74,589
Duck and tire fabrics ---- do	--------	9,130	11,557	13,305	--------	4,174	5,065	5,033
Unbleached ---- do	195,667	110,921	129,581	119,608	13,488	13,943	15,096	12,455
Bleached ---- do	33,848	82,459	92,938	98,359	2,590	12,076	13,352	12,371
Printed ---- do	169,059	97,263	111,198	99,150	10,974	13,926	14,921	14,046
Piece-dyed ---- do		93,955	107,345	100,437		18,082	20,320	17,645
Yarn-dyed ---- do		84,087	90,698	82,442		16,003	16,257	13,040
Hosiery ---- dozen pairs	--------	4,826	5,534	4,745	--------	9,096	10,494	8,407
Other knit goods	--------	--------	--------	--------	1,968	4,352	4,505	3,979
Other wearing apparel	--------	--------	--------	--------	5,884	9,361	9,139	8,302
All other	--------	--------	--------	--------	5,519	13,363	15,253	14,238

[1] Fiscal year average for 1910–1914 and calendar years thereafter.
[2] Quantities for 1910–1914 in linear yards, not square yards.

Source: Bureau of Foreign and Domestic Commerce.

Exports of Cotton Cloth.

Exports of cotton cloth aggregated 513,300,000 square yards valued at $74,589,000 in 1926 compared with 543,317,000 square yards with a value of $85,012,000 in 1925, a decrease of 5.6 per cent in quantity and of 12.3 per cent in value. The latter percentage reflects a drop in unit values from 15.6 cents per square yard in 1925 to 14.5 in 1926. The quantity of cotton-cloth exports in 1926 exceeded that of the fiscal year 1913 by 15 per cent.

Cotton duck and tire fabrics accounted for 13,305,000 square yards, worth $5,033,000, of the total exports of cotton cloth in 1926. The balance comprised 119,608,000 square yards of unbleached, 98,359,000 of bleached, 99,150,000 of printed, 100,437,000 of piece dyed, and 82,442,000 of yarn dyed. Comparative figures for preceding years are given in Table 15.

Principal Markets for American Cotton Cloth.

The principal markets for American cotton piece goods are the Latin American countries, the Philippine Islands, and Canada. The Philippine Islands took 101,072,000 square yards of cotton cloth in 1926 compared with 79,752,000 in 1925 and 93,260,000 linear yards in the fiscal year 1913. Cuba, the second largest foreign market for United States cotton cloth, increased its purchases from 66,424,000 square yards in 1925 to 70,004,000 in 1926, the latter figure being more than three times the exports to Cuba in 1913. Exports to South America totaled 117,602,000 square yards in 1926 against 139,482,000 in the preceding year and 54,164,000 linear yards in 1913. Shipments to Central America increased from 34,048,000 linear yards in 1913 to 63,192,000 square yards in 1925, but declined in 1926 to 53,038,000. Since the war there has been a notable loss of export business in British India and China, where the expansion of the native cotton-manufacturing industries and the competition from Japanese goods have seriously reduced sales of American cloth.

Chart IV.—COTTON CLOTH: DOMESTIC EXPORTS AND IMPORTS, BY QUARTERS

NOTE.—Previous to January 1, 1922, quantity of exports given in yards, not square yards.

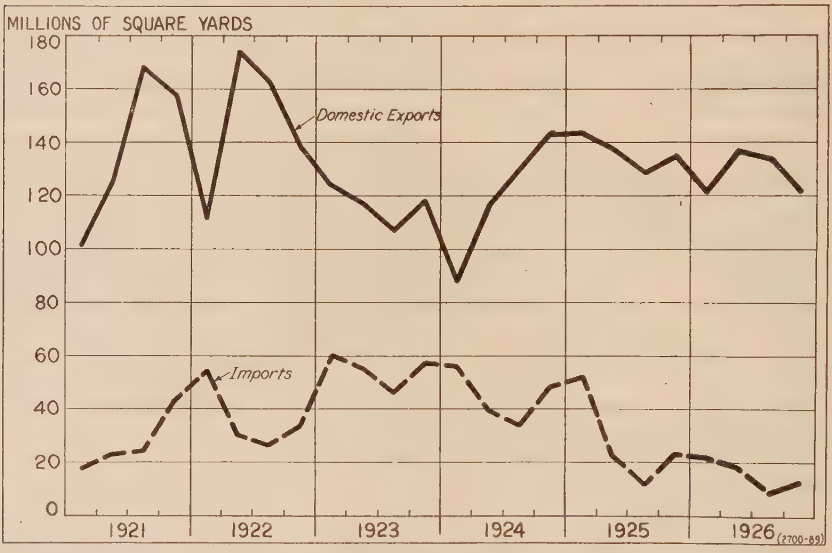


Table 16.—Cotton Cloth: Domestic Exports and Imports

[Quantity and value in thousands of square yards or dollars]

Year	Domestic exports		Imports		Quarter	Domestic exports		Imports	
	Quantity [1]	Value	Quantity	Value		Quantity	Value	Quantity	Value
1913 [2]	444,729	30,668	43,637	7,758	1925				
1919	683,045	151,998	49,753	17,665	Jan.-Mar.	143,001	22,401	51,846	11,423
1920	818,751	238,154	141,331	51,865	Apr.-June	136,853	21,796	22,487	5,696
1921	551,513	71,574	106,308	29,426	July-Sept	128,618	20,341	11,740	3,290
1922	587,493	85,232	[3] 142,458	39,073	Oct.-Dec.	134,844	20,474	23,176	6,015
1923	464,520	79,357	218,970	47,188					
1924	477,815	78,204	177,386	37,703	1926				
1925	543,317	85,012	109,249	26,424	Jan.-Mar.	120,348	18,687	20,919	5,293
1926	513,300	74,589	60,680	16,258	Apr.-June	137,237	20,535	17,912	4,729
					July-Sept	133,990	18,706	8,821	2,656
Per cent change, 1926 from 1925	−5.5	−12.3	−44.5	−38.5	Oct.-Dec.	121,726	16,660	13,028	3,580

[1] Quantity for exports given in linear yards, not square yards, prior to Jan. 1, 1922.
[2] Fiscal year ended June 30.
[3] Quantity estimated for the period Sept. 22 to Dec. 31, inclusive.

Source: Bureau of the Census.

Table 17.—Exports of Cotton Cloth by Countries of Destination

Country of destination	Quantity (thousands)					Value (thousands of dollars)				
	1913 [1]	1923	1924	1925	1926	1913 [1]	1923	1924	1925	1926
	Yards	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*					
Total	444,729	464,520	477,815	543,317	513,300	30,669	79,357	78,204	85,012	74,589
United Kingdom	2,469	1,941	2,150	4,266	3,578	424	836	949	1,289	1,062
Canada	27,122	35,532	33,389	38,061	46,165	2,507	7,353	6,106	6,872	7,422
Central America	34,048	51,828	62,694	63,192	53,038	2,181	7,689	8,898	8,655	6,822
Mexico	2,648	16,869	18,001	21,142	14,395	350	3,722	3,899	4,496	2,807
Jamaica	6,384	8,917	7,722	13,109	10,114	450	1,176	960	1,562	1,057
Cuba	22,074	86,855	80,923	66,424	70,004	1,532	14,255	13,600	10,041	9,780
Dominican Republic	13,159	13,383	17,371	17,825	13,812	877	2,187	2,773	2,805	1,950
Haiti	20,172	22,252	23,181	31,056	17,481	1,387	3,866	3,802	4,709	2,240
Other West Indies [2]	5,598	4,990	5,147	7,322	8,034	393	893	862	1,147	1,104
Argentina	1,529	21,492	21,223	22,859	19,294	180	4,143	3,882	3,938	3,478
Bolivia	4,680	5,272	5,840	7,203	7,527	286	716	857	942	883
Brazil	1,136	3,620	10,350	7,436	4,429	120	695	1,650	1,227	855
Chile	10,497	24,874	22,685	23,517	24,656	689	4,212	3,525	3,491	3,227
Colombia	26,388	22,914	32,318	43,919	33,708	1,337	3,556	4,675	6,072	4,492
Ecuador	2,926	4,951	9,046	10,800	3,903	178	750	1,191	1,407	525
Peru	1,767	7,889	6,769	4,734	7,043	125	1,620	1,335	843	1,131
Venezuela	3,869	5,817	10,618	10,535	8,425	344	1,108	1,859	1,823	1,404
Other South America	1,372	6,244	7,280	8,479	8,618	108	1,114	1,197	1,272	1,178
Aden	24,690	6,969	2,485	4,338	4,399	1,434	728	254	416	380
British India	13,748	1,270	3,031	4,637	5,456	1,164	207	534	705	712
China	80,462	1,574	1,551	7,419	1,418	5,585	282	290	1,083	257
Philippine Islands	93,260	73,800	67,514	79,752	101,072	5,777	11,355	9,640	11,513	13,362
Australia	8,314	4,736	3,216	5,002	8,030	736	1,140	779	1,311	1,889
British South Africa	252	6,758	7,794	12,172	14,021	40	1,556	1,778	2,525	2,485
Other countries	36,166	23,774	15,515	28,118	24,680	2,462	4,197	2,908	4,869	4,089

[1] Fiscal year ended June 30, 1913.
[2] Including Bermuda.

Source: Bureau of Foreign and Domestic Commerce.

Principal Classes of Cotton Cloth Imported.

United States imports of cotton cloth (Table 15) declined from a total of 109,249,000 square yards, valued at $26,424,000, in 1925, to 60,680,000 square yards, with a value of $16,258,000, in 1926, a decrease of 44 per cent in quantity and of 38 per cent in value. The average unit price of cloth imported increased from 24.2 cents in

1925 to 26.8 cents in 1926, indicating that the imports include a constantly greater proportion of the better grades of goods. In 1913 of a total of 43,637,000 square yards of cotton cloth imported into the United States only 4,317,000 were unbleached; 11,651,000 were bleached; and 27,669,000 square yards consisted of printed, dyed, and woven-figured goods. In recent years, however, unbleached or gray goods have constituted the most important class in imports of cotton cloth and accounted for 69 per cent of the total yardage in 1925 and 55 per cent in 1926. The total importation of unbleached goods decreased 56 per cent in 1926 and that of colored, printed, and woven figured goods was 23 per cent smaller, while imports of bleached goods increased 8 per cent.

The United Kingdom supplied 73 per cent of the total imports (yardage) in 1926, 84 per cent in 1925, and 72 per cent in 1913. In 1926 Switzerland, Czechoslovakia, Japan, France, and Germany ranked next in order of importance. Continental countries apparently are regaining their pre-war position in the cotton piece-goods markets of the United States. Japan, which ranked second in both 1924 and 1925, supplied only 2,267,000 square yards in 1926, as compared with 5,373,000 in 1925.

Imports of Cotton Cloth by Commercial Classifications.

Monthly imports of specified kinds of cotton cloth, designated by commercial classifications, through the customs districts of New York, Boston, Philadelphia, Chicago, and San Francisco have been available since March, 1924. The entries through these customs districts constituted approximately 88 per cent of the total cotton cloth imports in the 10 months, March to December, 1924, 87 per cent in 1925, and 84 per cent in 1926.

Poplins, broadcloths, madras, oxfords, and other shirtings constituted 60 per cent of the yardage volume of cotton-cloth importations through the aforementioned five leading customs districts during the last 10 months of 1924, 67 per cent in the calendar year 1925, and 48 per cent in 1926. The bulk of these shirtings are imported in the unbleached or gray state. Imports of unbleached poplins, broadcloths, and other shirtings aggregated 54,575,000 square yards in 1925 and 16,237,000 in 1926, the sharp drop being partly attributed to the declining popularity of broadcloths and partly to the increasing ability of domestic mills to supply the types of cotton broadcloth in demand. The introduction of cheaper qualities of broadcloths made in imitation of the original "ply broadcloths" undoubtedly has been a factor in the reduced demand for the imported fabric. The average unit price of unbleached broadcloths and other shirtings advanced, however, from 19.7 cents per square yard in 1924 to 20.35 in 1925 and to 22.34 in 1926, an indication that present importations are of the higher grades—an assumption borne out by the statistics of imports of unbleached cotton cloth (not woven figured) for consumption which are tabulated by yarn numbers. In 1926 over half of the imports of unbleached goods were woven from yarns above 70s while in the preceding year about the same proportion were made from counts averaging 20s to 50s.

Table 18.—Imports of Specified Kinds of Cotton Cloth Through the Customs Districts of New York, Boston, Philadelphia, Chicago, and San Francisco

[Quantity and value in thousands of square yards or dollars]

Description of cloth	March to December, 1924[1]		January to December, 1925		January to December, 1926	
	Quantity	Value	Quantity	Value	Quantity	Value
Poplins and broadcloths:						
Unbleached	69,756	13,741	54,575	11,108	16,237	3,627
Bleached	1,395	427	2,302	818	1,592	586
Printed, colored, or fancy woven	2,786	859	6,519	2,251	6,588	2,380
Sateens woven with not more than 7 harnesses	[2] 6,719	[2] 1,149				
Unbleached	[3] 7,497	[3] 1,306	4,031	796	3,094	515
Bleached	[3] 135	[3] 29	164	40	209	46
Printed, colored, or fancy woven	[3] 6,328	[3] 1,170	1,799	498	1,090	295
Sateens woven with 8 or more harnesses	[2] 109	[2] 25				
Unbleached	[3] 815	[3] 190	549	149	871	197
Bleached	[3] 70	[3] 22	71	27	132	46
Printed, colored, or fancy woven	[3] 1,958	[3] 651	2,174	846	1,329	458
Lawns, organdies, nainsooks, cambrics, and similar fine goods of average yarn number above 40	[4] 1,822	[4] 390				
Unbleached	[5] 3,883	[5] 806	6,918	1,655	7,807	1,733
Bleached	[5] 1,086	[5] 293	1,947	638	2,598	731
Printed, colored, or fancy woven	[5] 1,181	[5] 363	2,881	975	2,970	940
Voiles, plain or fancy	7,057	1,321	5,552	1,155	3,314	591
Crêpes, plain or fancy	4,889	765	3,333	537	1,413	198
Ratines	1,451	519	197	75	241	55
All Jacquard-woven cloths, other than swivels or lappets	1,241	430	212	67	190	63
Dotted Swisses	896	301	736	406	1,196	563
Ginghams, two or more colors, 20 to 59 average yarn numbers	1,706	364	1,260	362	329	138
Total	[6] 122,782	[6] 25,123	95,220	22,405	51,197	13,163
Total cotton-cloth imports through all customs districts	138,975	29,721	109,249	26,424	60,680	16,258

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[1] The imports of specified cloths for March were for New York only, and those for April comprised entries at New York, Philadelphia, and San Francisco. The figures for the remaining months are complete. The bulk of cotton-cloth imports are entered at New York.

[2] March and April only; details not available.

[3] May to December, inclusive.

[4] March to May, 1924, inclusive; details not available.

[5] June to December, 1924, inclusive.

[6] In addition to the items enumerated, 1,194,754 square yards of Venetians, valued at $388,562, were imported during the 3 months, March to May, 1924, inclusive.

Source: Bureau of Foreign and Domestic Commerce.

WOOL AND WOOL MANUFACTURES

SUMMARY.—The raw wool production in the United States was estimated at 310,901,000 pounds in 1926, an increase of 6.3 per cent over 1925. Imports were 11 per cent less than during 1925 and reexports were practically twice as much. Reported consumption of wool, based on returns which the trade estimates to cover 80 per cent of the wool spindlage declined from 450,021,000 pounds in 1925 to 438,356,000 in 1926. Activity of wool machinery, in general, showed declines as compared with 1925 except worsted spindles, which registered an increase in the average for the year of 2.7 per cent. Raw wool prices were more stable in 1926 than for several years but were lower at the close of the year than at the opening Yarn prices, as usual, closely followed raw material quotations, although not being so quick to register changes, and cloth prices were also lower at the end of the year than at the beginning.

PRODUCTION

Production of Raw Wool.

Domestic production of wool during 1926 was estimated by the Department of Agriculture at 310,901,000 pounds which comprised 260,901,000 pounds of fleece wool and 50,000,000 pounds of pulled wool. The total represents an increase of 6.3 per cent over the revised figures for 1925 and of 11.3 over those for 1924. Even though a substantial increase was registered in the United States production in 1926, Argentina ranked ahead and remained the second largest producer of wool in the world with Australia first. The Australian clip in 1926 was estimated at 768,000,000 pounds, an increase of about 5 per cent over 1925, while that of Argentina was placed at 314,840,000 pounds, a gain of less than 1 per cent over the previous year. Table 19 shows the wool production of the principal producing countries for 1926, as compared with other recent years and the average of 1910–1913.

Table 19.—Wool Production by Principal Producing Exporting Countries and by Leading States in the United States

[In thousands of pounds]

Principal producing exporting country	1910–1913 average	1924	1925	1926 [1]	Leading producing State	1914	1924	1925	1926 [1]
Australia	705,146	662,400	732,807	768,000	Texas	8,643	24,806	25,280	27,297
Argentina	358,688	280,000	312,400	314,840	Montana	30,177	19,522	20,640	23,320
United States	314,110	279,375	292,362	310,901	Wyoming	28,476	19,090	21,362	22,338
New Zealand	198,474	188,000	199,731	207,801	California	11,480	18,250	19,912	20,276
British South Africa	165,888	183,000	185,000	180,000	Utah	13,100	17,970	18,010	19,430
Uruguay	156,968	96,500	117,000	125,000	Oregon	15,763	15,840	16,958	18,321
United Kingdom and the Irish Free State	134,000	106,300	109,800	114,500	Ohio	13,844	14,167	14,467	14,760
					Idaho	14,792	14,450	14,309	14,507
					New Mexico	19,077	11,224	11,084	12,060

[1] Figures are preliminary and subject to revision.

Source: Domestic wool production, Bureau of Agricultural Economics, Department of Agriculture; oreign countries, Bureau of Foreign and Domestic Commerce.

Since 1922 Texas has led all States in the amount of wool produced, its clip totaling 27,297,000 pounds in 1926. Wyoming was second and Montana third in 1925, but in 1926 this order was reversed and Montana was second with a clip of 23,320,000 pounds and Wyoming third with 22,338,000 pounds. Ohio, the only middle western State among the 10 largest wool producers, was in seventh place in both 1925 and 1926. The clip of the principal producing States is shown in Table 19.

Census Statistics of Wool Manufactures.

The wool-manufactures group comprises five industries, of which woolen goods (made from carded yarns), worsted goods (made from combed yarns), and carpets and rugs, are the most important.

The United States leads the world in wool manufacturing according to calculations based upon imports, exports, and domestic production of wool in the various wool-consuming countries. The result of these calculations indicate the amount of wool retained or available for consumption but can not be construed as actual consumption figures because there are no statistics of stocks on hand which may have increased or decreased during the year.

Table 20.—Wool Available for Consumption in Principal Manufacturing Countries

[In thousands of pounds]

Country and year	Domestic production	Exports of domestic	Imports	Reexports	Retained for consumption
United Kingdom:					
1925	109, 800	53, 775	726, 859	339, 387	443, 497
1926	114, 500	54, 395	815, 653	338, 370	537, 388
France:					
1925	44, 974	(1)	537, 314	66, 813	515, 475
1926	47, 619	(1)	634, 969	95, 982	586, 606
Germany:					
1925	50, 160	(1)	296, 455	17, 057	329, 558
1926	41, 710	(1)	324, 112	15, 094	350, 728
Italy:					
1925	57, 000	(1)	77, 016	5, 304	128, 712
1926	55, 800	(1)	102, 760	8, 102	150, 458
Belgium:					
1925	840	(1)	98, 899	4, 485	95, 254
1926	775	(1)	112, 121	3, 770	109, 126
United States:					
1925	292, 362	273	336, 646	7, 087	621, 648
1926	310, 901	292	299, 451	14, 082	595, 978

[1] Exports of domestic, if any, included with reexports.

Source: Bureau of Foreign and Domestic Commerce.

The total value of wool-manufactures in the United States during 1925 was $1,199,417,000. This is $113,302,000, or 9 per cent, less than the value of production in 1923, which was the highest year on record. In quantity, the 1925 production was about on a par with that of 1909, but was less than 1923.

Chart V.—PRODUCTION OF WOVEN GOODS IN THE WOOLEN AND WORSTED GOODS INDUSTRIES

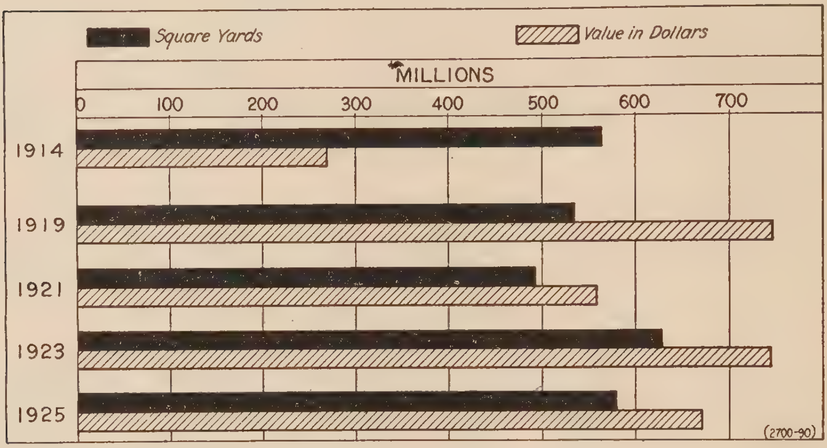

Table 21.—The Wool Manufacturing Industries

Industry and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
The group as a whole:							
1899	1,414	159,108	270,561	57,934	181,159	296,990	115,831
1909	1,124	202,029	393,668	87,963	322,441	507,167	184,726
1914	979	195,285	435,474	93,358	298,063	464,250	166,186
1919	1,016	196,404	522,917	198,586	759,193	1,234,657	475,464
1921	961	190,894	(1)	209,573	463,849	888,558	424,709
1923	1,004	237,454	615,601	280,153	748,556	1,312,719	564,163
1925	973	206,110	659,074	243,043	756,074	1,199,417	443,343
Woolen and worsted goods:							
1899	1,221	125,901	234,660	44,850	148,087	238,745	90,657
1909	911	163,192	348,283	69,727	273,439	419,744	146,305
1914	799	158,692	375,573	75,953	246,497	379,484	132,988
1919	852	166,787	466,219	168,109	665,595	1,065,434	399,839
1921	814	162,364	(1)	174,895	400,046	755,584	355,538
1923	851	194,552	538,465	222,985	622,732	1,062,558	439,827
1925	832	165,224	570,295	191,271	620,402	957,790	337,388
Woolen goods alone:							
1923	513	72,408	180,657	87,314	201,547	364,288	162,740
1925	503	67,056	193,080	82,436	219,618	361,524	141,906
Worsted goods alone:							
1923	338	122,144	357,808	135,671	421,184	698,271	277,086
1925	329	98,168	377,215	108,835	400,784	596,266	195,483
Carpets and rugs: [2]							
1899	133	28,411	26,271	11,121	27,229	48,192	20,964
1909	139	33,307	37,194	15,536	39,563	71,188	31,625
1914	97	31,309	42,794	14,716	42,280	69,128	26,848
1919	75	22,933	37,593	24,216	67,118	123,254	56,136
1921	72	22,922	(1)	28,705	50,118	103,881	53,762
1923	79	35,217	53,852	48,528	97,473	199,481	102,008
1925	69	33,886	63,008	43,383	104,196	188,903	84,707
Felt goods:							
1923	53	5,735	20,522	6,635	23,895	42,037	18,142
1925	50	5,146	23,228	6,404	26,354	43,776	17,421
Wool-felt hats:							
1923	21	1,950	2,762	2,005	4,457	8,643	4,186
1925	22	1,854	2,543	1,986	5,123	8,949	3,826

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[1] Not called for in schedules for 1921.
[2] Not including carpets and rugs made of rags.

Source: Bureau of the Census.

Production of the Principal Classes of Wool Manufactures.

The production of practically all classes of wool manufactures was smaller in 1925 than in 1923. (Table 22.) The output of woven goods was 48,229,000 square yards, or 7.7 per cent less than 1923, while that of carpets and rugs was 11,141,000 square yards, or 13.4 per cent less. The value of the 1925 production of woven goods was nearly 9.6 per cent less than in 1923, whereas the value of carpet and rug production was only 4.8 per cent smaller.

Table 22.—Production of Principal Classes of Wool Manufactures [1]

[Quantities in thousands of square yards, except wool-felt hats in thousands of dozens; yarn, tops, and noils in thousands of pounds; value in thousands of dollars]

Class	Quantity				Value			
	1914	1921	1923	1925	1914	1921	1923	1925
Total value					**464.250**	**888,558**	**1,312,719**	**1,199,417**
PIECE GOODS AND BLANKETS								
All-wool woolens	90,950	132,286	172,028	153,323	55,661	156,551	231,211	198,964
All-wool worsteds	222,421	185,359	210,988	179,163	141,778	279,913	333,959	275,617
Wool and cotton mixtures	31,400	18,490	24,732	26,124	11,711	14,271	23,261	25,943
Cotton-warp woolens	53,509	44,363	63,203	60,934	13,598	22,665	37,002	40,029
Cotton-warp worsteds	56,763	43,151	41,188	41,379	15,563	27,781	28,801	25,749
Flannels	23,264	9,001	12,775	8,876	4,784	4,729	6,351	4,388
Satinets and linseys	8,415	4,523	6,107	11,877	1,535	1,525	2,278	4,244
Blankets, all-wool	6,490	6,754	11,872	11,084	4,187	6,505	9,321	10,989
Blankets, cotton-mixed	3,937	3,499	8,854	8,098	2,068	2,575	5,286	5,175
Blankets, cotton-warp	17,974	9,296	12,187	15,070	3,010	6,073	6,138	7,411
Upholstery goods and sundries	(2)	(2)	9,538	17,162	2,042	7,933	21,486	34,114
All other woolen and worsted woven goods	50,339	37,038	54,546	46,699	14,785	28,093	37,174	40,946
Total [3]	565,462	493,760	628,018	579,789	270,722	558,614	745,268	673,569
ALL OTHER PRODUCTS								
Yarns for sale	132,560	125,616	179,455	151,000	85,872	161,080	252,242	210,692
Tops and slubbing	8,985	10,341	21,120	18,055	4,927	7,436	23,927	23,613
Noils and wool waste	50,395	40,647	55,110	42,591	10,140	9,577	19,297	17,887
All other products of the woolen and worsted goods industry					4,387	5,735	8,303	20,909
Contract work					3,437	13,142	13,522	11,120
Carpets and rugs	66,340	52,906	83,242	72,101	64,683	100,038	192,157	183,008
Felt goods					13,693	24,129	42,037	43,118
Wool-felt hats, hat bodies, and hats in the rough	387	336	513	553	1,790	4,294	7,661	7,649
All other products					4,599	4,513	8,305	7,852

[1] Production figures in each case are only those of the branch of the wool industry to which the products in question normally belong. For instance, woolen and worsted woven goods produced in carpet and rug factories are not included under those classifications.

[2] Figures not available.

[3] Not including the quantity of "Upholstery goods and sundries" for the years 1914 and 1921; values for these years, however, are included in the total value of piece goods and blankets.

Source: Bureau of the Census.

Activity of Wool Machinery.

The percentage of activity of wool machinery (based upon the hours actually worked as affected by part time or overtime and by idleness, as compared with the number of hours for all machinery if operated at full single shift capacity) showed slight changes in 1926 as compared with 1925, but on the whole, was somewhat lower. Comparing annual totals, operation of woolen spindles declined from

84 per cent in 1925 to 73 per cent in 1926, while that of worsted spindles registered an increase from 66 per cent to 69 per cent. Looms wider than 50 inches operated at only 63 per cent of capacity as against 69 per cent in the previous year, while narrow looms also showed a decreased activity, being 61 per cent in 1926 as against 64 per cent in 1925. An even greater decline may be noted in the carpet and rug loom activity which declined from 72 per cent in 1925 to 63 per cent in 1926.

Activity in the various branches of the wool-manufactures industry fluctuated throughout 1926 with the trend downward from the beginning of the year until July, after which there was a recovery to the high point of the year in October and November and a slight decline in the latter part of November and December. Maximum activity (based on hours worked) was registered in October by woolen spindles, wide and narrow looms; in November by worsted spindles, and in February and March by carpet and rug looms. The smallest month in all cases was July. In December activity of all machinery except the carpet and rug looms was greater than at the beginning of the year, but carpet and rug looms' activity was 3 per cent less.

Table 23.—Activity of Wool Machinery

NOTE.—The percentage of hourly activity represents the ratio of the hours actually run by machinery, taking account of double-shift, part-time, and overtime operation, to the total number of hours which would be possible if all machinery operated at the maximum single-shift capacity; the percentage of machinery active is based on monthly reports, any machine active at any time during the month being counted, and no account being taken of variations in the number of days or hours worked. There are small variations from month to month in the completeness of the reports which may slightly affect the accuracy of the percentages. The following statistics are based on reports from 1,134 mills in 1923, 1,084 in 1924, 1,098 in 1925, and 1,021 in 1926.

Monthly average	Per cent of reporting machines active					Hours worked, per cent of maximum single-shift capacity				
	Spinning spindles		Looms			Spinning spindles		Looms		
	Woolen	Worsted	Wide	Narrow	Carpet and rug	Woolen	Worsted	Wide	Narrow	Carpet and rug
1919	84	79	71	72	57	--------	--------	--------	--------	--------
1920	67	74	64	70	67	--------	--------	--------	--------	--------
1921	72	84	71	71	56	72	82	70	64	51
1922	83	78	69	73	80	87	79	68	65	77
1923	86	88	81	83	86	92	92	83	76	82
1924	80	69	69	77	75	85	66	69	62	66
1925	79	69	69	72	75	84	66	69	64	72
1926	72	70	62	67	68	73	69	63	61	63

Source: Bureau of the Census.

Table 24.—Activity of Wool Machinery by Months[1]

[An asterisk (*) indicates the minimum and a dagger (†) the maximum month of each year]

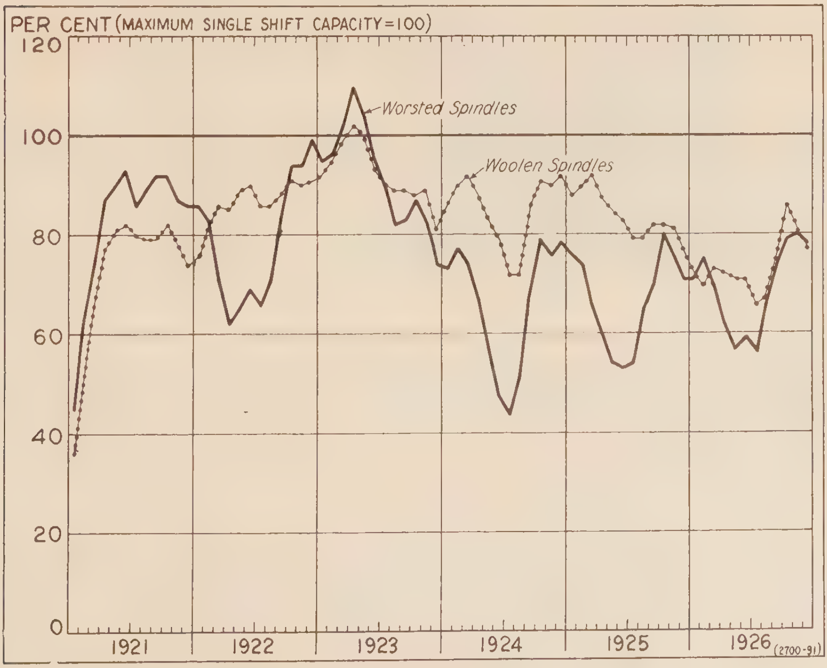
Month	Hours worked, per cent of maximum single-shift capacity												
	Spinning spindles						Wide looms			Narrow loom		Carpet and rug looms	
	Woolen			Worsted			1924	1925	1926	1925	1926	1925	1926
	1924	1925	1926	1924	1925	1926							
January	86	88	72	73	76	71	73	†76	67	†72	63	78	68
February	90	90	70	77	74	75	71	75	63	69	62	81	†70
March	†92	†92	73	74	66	70	71	71	62	68	61	†86	†70
April	88	87	72	67	60	62	66	68	59	68	62	76	63
May	83	85	71	57	54	57	68	66	57	59	57	73	57
June	79	83	71	48	*53	59	62	65	57	59	57	70	58
July	*72	79	*66	*44	54	*56	*58	*61	*53	*52	*53	65	*55
August	*72	79	67	51	65	66	*58	63	56	57	55	68	60
September	86	82	76	67	70	74	66	69	64	61	57	65	62
October	91	82	†86	†79	†80	79	74	72	†71	67	†68	*64	65
November	90	81	81	76	75	†80	77	74	73	68	67	69	67
December	†92	*76	77	78	71	78	†78	70	72	64	67	67	65

[1] See headnote to Table 23.

Source: Bureau of the Census.

Chart VI.—ACTIVITY OF WOOL MACHINERY: HOURS WORKED, PER CENT OF MAXIMUM SINGLE-SHIFT CAPACITY

NOTE.—For definition of hours worked, see headnote table 23, page 496.



Wool Consumption.

The quantity of raw wool consumed during 1926, as reported by manufacturers to the Bureau of the Census, amounted to 438,356,000 pounds, 2.6 per cent less than reported in 1925 and 4.9 per cent less than in 1924. The decrease in 1926 was confined entirely to carpet wool of which 13,000,000 less pounds were consumed than in 1925. In other words, the wool going into the manufacture of fabrics other than carpets and rugs was slightly larger in 1926, amounting to 319,000,000 pounds. These figures are for wool in the condition purchased—scoured and pulled, as well as greasy. The grease equivalent of the total consumption in 1926 was 510,033,000 pounds and in 1925 was 526,285,000. These reports do not represent the entire industry; but, if we accept the trade estimate and consider them 80 per cent complete, the total wool consumption, grease basis, reached 637,541,000 pounds in 1926 and 657,857,000 pounds in 1925. Of these amounts, carpet wool, grease basis, represented 127,636,000 and 138,740,000 pounds, respectively.

Chart VII.—WOOL AVAILABLE FOR CONSUMPTION—PRODUCTION AND NET IMPORTS

NOTE.—The small exports of domestic wool are not shown in this chart.

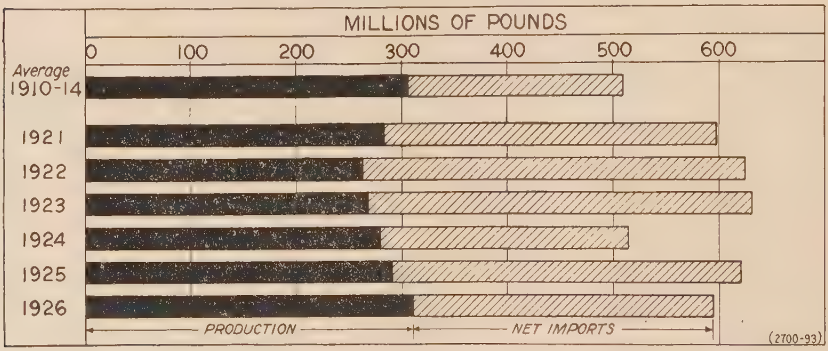


Table 25.—Consumption of Raw Wool by Textile Mills

NOTE.—These data reported by almost 600 manufacturers represent nearly 80 per cent of the industry, the figures from one large company and from 10 to 20 other concerns not being included. The figures are reduced to grease equivalent by multiplying scoured wool by 2 and pulled wool by 1⅓. Quantities in thousands of pounds, grease equivalent. An asterisk (*) indicates the minimum and a dagger (†) the maximum month of each year.

Month	1922	1923	1924	1925	1926	Month	1922	1923	1924	1925	1926
Total	649, 956	641, 607	537, 760	526, 285	510, 033	June	52, 621	52, 649	*30, 972	*38, 176	38, 249
						July	46, 902	46, 347	33, 778	40, 781	38, 236
January	52, 565	†63, 348	53, 845	†51, 435	41, 446	August	57, 340	48, 233	40, 064	42, 149	40, 859
February	54, 050	57, 916	50, 633	46, 415	40, 492	September	54, 771	46, 616	45, 638	44, 383	45, 770
March	55, 430	62, 859	47, 630	45, 853	43, 932	October	59, 282	51, 815	†54, 854	47, 327	†49, 072
April	*42, 780	56, 411	44, 361	43, 287	40, 093	November	†63, 313	50, 279	48, 380	43, 471	47, 808
May	52, 533	59, 682	36, 507	38, 246	*36, 237	December	58, 367	*45, 452	51, 098	44, 762	47, 839

Source: Bureau of Agricultural Economics, Department of Agriculture, until April, 1922; Bureau of the Census for all months thereafter.

Of the wool consumption covered by actual reports, domestic wool in 1926 comprised 200,662,000 pounds and foreign wool 237,694,000 pounds, a decrease of 12,472,000 pounds of domestic and an increase of 807,000 pounds of foreign wool as compared with 1925.

The consumption of fine wools (64s, 70s, and 80s) was practically the same in 1926 and 1925, while that of three-eighths blood (56s) showed only a slight increase. There was a decrease, however, in the consumption of one-half blood (58s, 60s) of nearly 3,000,000 pounds, and in one-quarter blood (48s, 50s) of slightly more than 3,000,000 pounds. Of low one-quarter bloods (46s) there was nearly 5,000,000 pounds more consumed in 1926 than in 1925, while in the grades lower than this (36s, 44s) the consumption was approximately the same.

Table 26.—Wool Produced, Imported, Exported, and Retained for Consumption; Values of Imports of Raw Wool and Wool Manufactures

NOTE.—Column "retained for consumption" is calculated from the other columns, and because of over lapping of time periods and the fact that changes in stocks (not available before 1918) are not taken into account, may bear no close relation to actual mill consumption during the year. Production represents wool in the grease and pulled wool; imports and exports represent wool in condition in which actually imported or exported, mainly in the grease.

Year [1]	Wool production	Exports of domestic wool	Wool imports [2]	Exports of foreign wool	Total retained for consumption	Foreign, per cent of total retained	Imports (values)	
							Raw wool	Wool manufactures
	Thousands of pounds						Thousands of dollars	
1871–1880	186,275	152	68,930	3,939	251,114	25.9	12,828	38,123
1881–1890	280,700	115	93,194	4,294	369,486	24.1	13,531	43,292
1891–1895	309,409	1,077	142,319	3,637	447,014	31.0	18,130	34,531
1896–1900	271,835	3,244	189,445	6,015	452,021	40.6	26,212	29,496
1901–1905	298,713	257	174,035	2,998	469,493	36.4	24,687	17,429
1906–1910	311,564	133	212,371	4,374	519,428	40.0	40,132	21,285
1911–1915	298,937	1,714	215,354	4,562	508.015	41.5	42,337	22,777
1916–1920	289,083	3,568	399,980	4,276	681,219	58.1	175,746	28,045
1921–1925	273,455	699	334,158	12,779	594,135	54.1	100,168	64,601
1921	283,629	1,927	316,605	1,552	596,755	52.8	59,474	51,265
1922	263,713	453	366,538	4,225	625.573	57.9	83,036	59,414
1923	268,196	535	388,345	23,557	632.449	57.7	126,891	69,118
1924	279.375	309	262,655	27,476	514,245	45.7	90,697	69,310
1925	292,362	273	336,646	7,087	621,648	53.0	140,683	73,901
1926	310,901	292	299,451	14,082	595,978	47.9	101.389	70,667

[1] Prior to 1916 data are for fiscal years ended June 30; thereafter calendar years.

[2] Prior to 1915 figures include hair of the camel, Angora goat, alpaca, and other like animals.

Sources: Production, 1896–1913, reports of the National Association of Wool Manufacturers, Boston; other years, reports of the Bureau of Agricultural Economics, Department of Agriculture; imports and exports, Bureau of Foreign and Domestic Commerce.

Stocks of wool in the United States, according to the joint report of the Bureau of the Census and the Department of Agriculture (which do not include returns from 19 manufacturers operating 68 mills, and 25 dealers in 1926, and 23 manufacturers operating 74 mills, and 15 dealers in 1925) amounted to 245,400,000 pounds on December 31, 1926, as compared with 260,615,000 pounds for the same date in 1925. This is a total net decline of 15,215,000 pounds; stocks of foreign wool were 39,492,000 pounds less, while stocks of domestic wool were 24,277,000 pounds larger.

PRICE MOVEMENT AND MARKET CONDITIONS

Raw-wool prices throughout the year 1926 were considerably more stable than for the past few years. In fact, if the first three or four months are eliminated, it can be safely said that wool prices varied very little throughout the rest of the year. Ohio, Pennsylvania, and similar wool of a three-eighths blood (56s) grade in the grease was quoted at an average price of 54 cents during January. From this point it declined to 45 cents in April, but during the subsequent months, although it got down as low as 43 cents in June, the variation was very small, and the average price during the last quarter was again 45 cents. Fine staple choice territory, scoured basis, was quoted at an average price of $1.28 per pound during January, from which point it fell to $1.10 per pound in June, and for the balance of the year there were only small fluctuations. In December, however, the average price for this grade was $1.08 per pound.

Yarn prices, as usual, followed the general trend of raw-wool prices, but declines and advances in the latter were not immediately reflected in the yarns. Worsted yarns, 2/32s, of crossbred stock were quoted at $1.55 per pound in January. There was a gradual decline until in May they were quoted at $1.40, but throughout the balance of the year there was no change whatever.

Wool cloth quotations were fairly steady throughout 1926. For example, the price of women's dress goods (all-wool, double warp, 54-inch storm serge) was $1.175 per yard in January and remained at this figure through August. In the latter part of September there was a slight downward revision to $1.125 at which it remained for the balance of the year. Wool-dyed, blue, 16-ounce, 55–56 inch Middlesex suiting was quoted at $3.60 in January and February, but in March had declined to $3.51. This price remained in effect through the following two months, but in June there was another decrease to $3.285, at which level it remained stable through the remainder of the year.

Table 27.—Prices of Raw Wool, Worsted Yarn, and Wool Cloths

[Prices of wool and yarn per pound, of cloth per yard]

Year	Raw wool		Worsted yarn [3]	Wool cloths		Quarter	Raw wool		Worsted yarn [3]	Wool cloths	
	Ohio [1]	Territory [2]		Dress goods [4]	Suitings [5]		Ohio [1]	Territory [2]		Dress goods [4]	Suitings [5]
1910	$0.31	$0.65	$0.869	-------	-------	1924					
1911	.26	.57	.788	-------	-------	Jan.-Mar	$0.57	$1.40	$1.683	$1.035	$3.690
1912	.29	.64	.828	-------	$1.523	Apr.-June	.53	1.32	1.633	1.035	3.660
1913	.26	.56	.777	$0.563	1.545	July-Sept	.54	1.37	1.600	1.035	3.600
1914	.26	.59	.640	.500	1.459	Oct.-Dec	.65	1.59	1.850	1.035	3.690
1915	.36	.71	.788	.557	1.564	1925					
1916	.42	.84	1.050	.762	1.974	Jan.-Mar	.69	1.63	1.867	1.035	3.780
1917	.67	1.57	1.556	1.088	3.158	Apr.-June	.54	1.32	1.750	1.035	3.660
1918	.77	1.82	2.109	1.465	4.040	July-Sept	.54	1.32	1.667	[7] 1.035	3.600
1919	.67	1.78	1.627	1.318	4.009	Oct.-Dec	.56	1.31	1.600	(8)	3.600
1920	.53	1.60	1.825	1.341	4.179	1926					
1921	.28	.85	1.179	.882	2.933	Jan.-Mar	.52	1.25	1.533	1.175	3.570
1922	.46	1.25	1.413	.838	3.101	Apr.-June	.44	1.13	1.416	1.175	3.435
1923	.56	1.41	1.729	1.024	3.623	July-Sept	.44	1.12	1.400	1.162	3.285
1924	.57	1.42	1.692	1.035	3.660	Oct.-Dec	.45	1.11	1.400	1.125	3.285
1925	.58	1.40	1.721	[6] 1.054	3.660						
1926	.46	1.15	1.435	1.159	3.394						

[1] Raw wool, Ohio, Pennsylvania, and West Virginia, ⅜-blood, combing, unwashed, Boston.

[2] Raw wool, fine Territory, scoured, staple, choice, Boston.

[3] Worsted yarn, 2/32s crossbred stock, Boston.

[4] Prior to 1926 prices for women's dress goods are for 50-inch, storm serge, all wool, double warp material; this number was discontinued by the manufacturer and quotations for 1926 are for a 54-inch width of the same type of goods, New York; wholesale prices.

[5] Wool suitings, 55 to 56 inch, Middlesex, New York; wholesale prices.

[6] Annual average based on estimated prices for last four months of 1925.

[7] July and August only; no quotation for September.

[8] No quotations for October to December, inclusive.

Sources: Raw-wool prices from Bureau of Agricultural Economics, Department of Agriculture; yarn and fabric prices from Bureau of Labor Statistics, Department of Labor.

WAGES AND HOURS OF LABOR

Woolen and Worsted Goods Industry, 1924 and 1926.

A study of wages, hours, and earnings in 1926 in the woolen and worsted goods industry in the United States was recently made and a summary of the results published by the Department of Labor. The information was obtained from 112 representative mills in the principal wool manufacturing States with the exception of New Jersey, which was not included because of its unsettled labor conditions. It included data on 22,152 males and 17,818 females and for comparable purposes similar data for 1924 were used for 23,248 males and 18,374 females.

This survey showed that average earnings per hour of males in all occupations decreased from 57.8 cents in 1924 to 54.5 cents in 1926, and those of females from 46.7 cents to 41.8 cents. Average full-time earnings per week of males in all occupations combined decreased from $28.44 in 1924 to $26.87 in 1926, and those of females from $22.84 to $20.61.

In 1924 the highest average earnings per hour for males were those of loom fixers, 87 cents, and the lowest were those of doffers, 30.1 cents. In 1926, also, the two extremes of average earnings per hour for males were held by these two occupations, their earnings being 80.7 and 28 cents, respectively. The average hourly earnings of females ranged from 31.5 cents in 1924 for doffers to 65.4 cents for weavers, and in 1926 from 28 cents for doffers to 69.8 cents per hour for wool sorters.

FOREIGN TRADE

Raw Wool Imports and Reexports.

The imports of raw wool in 1926, exclusive of mohair, alpaca, etc., totaled 299,451,000 pounds as compared with 336,646,000 pounds in 1925. This was a decline of 11 per cent. Reexports which had reached the high figure of 27,476,000 pounds in 1924 and then declined to 7,087,000 pounds in 1925, increased and were 14,082,000 pounds in 1926. The 1926 imports of wool comprised 115,521,000 pounds of carpet wool, 168,708,000 pounds of combing wool, and 15,222,000 pounds of clothing wool, a decrease of more than 42,000,000 pounds of carpet wool and 8,000,000 pounds of clothing wool, but an increase of nearly 14,000,000 pounds of combing wool as compared with 1925.

The chief sources of the 1926 imports were Australia, the United Kingdom, Argentina, Uruguay, New Zealand, China, India, South Africa, Turkey, and Syria. The figures shown in Table 29 include not only the wool shipped directly from each of these countries but also that shipped indirectly through other countries. Increases, compared with 1925, are apparent in the receipts of wool grown in England, Argentina, Uruguay, New Zealand, and Turkey. For the other countries declines are evident, especially for China, which in 1925 sent nearly 64,000,000 pounds to the United States.

Table 28.—Imports of Raw Wool by Classes and Principal Countries of Immediate Shipment

Class and country	Quantity (thousands of pounds)					Values (thousands of dollars)				
	1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
Carpet wool	173, 036	122, 399	140, 960	157, 971	115, 521	29, 267	26, 304	34, 175	47, 233	30, 103
Clothing wool	38, 402	30, 851	17, 785	23, 479	15, 222	9, 472	11, 406	8, 129	10, 908	5, 371
Combing wool	155, 101	235, 095	103, 910	155, 197	168, 708	44, 357	89, 191	48, 393	82, 543	65, 915
Total	366, 538	388, 345	262, 655	336, 646	299, 451	83, 096	126, 891	90, 697	140, 683	101, 389
United Kingdom	99, 598	96, 238	69, 072	[1] 77,388	[1] 71,041	23, 160	32, 062	24, 929	[1] 29,093	[1] 21,489
Argentina	55, 923	70, 623	32, 416	36, 582	40, 334	9, 334	19, 470	10. 936	15, 097	12, 519
Uruguay	31, 549	38, 560	8, 607	26, 301	32, 767	7, 024	14, 684	3, 547	13, 425	12, 845
British India	2, 923	4, 451	3, 462	8, 330	5, 512	553	1, 101	863	2, 726	1, 580
China	63, 215	51, 651	65, 840	63, 786	22, 872	9, 713	10. 720	14, 411	17, 618	5, 906
Palestine and Syria	2, 498	3, 131	5, 912	7, 462	6. 831	659	849	1, 647	2, 636	1, 915
Australia	48, 674	53, 630	35, 384	55, 654	51, 187	18, 556	26, 325	20, 554	35, 919	24, 546
New Zealand	10, 770	13, 559	5, 865	10, 675	18, 452	1. 783	4, 095	1, 926	5, 400	5, 636
British South Africa	9, 388	14, 861	4, 956	8, 028	13, 776	3, 160	5, 882	2, 669	3, 720	5, 227
All other	42, 001	41, 639	31, 139	42, 441	36, 680	9, 154	11, 702	9, 214	15, 048	9, 725

[1] Excluding imports from the Irish Free State.

Source: Bureau of Foreign and Domestic Commerce.

Table 29.—Imports of Wool Into United States, by Principal Countries of Production, 1926

[In thousands of pounds]

Country of production	Carpet wool	Clothing wool	Combing wool	Country of production	Carpet wool	Clothing wool	Combing wool
Total	**115, 521**	**15, 222**	**168, 708**	China	23, 711	----------	----------
				Chile	21	1, 871	2, 275
Argentina	6, 586	2, 279	30, 809	New Zealand	8	1, 510	24, 027
Australia	45	4, 185	51, 255	Syria	8, 423	----------	----------
British India	21, 431	13	38	United Kingdom	23, 934	2, 002	9, 177
British So. Africa	141	1, 130	12, 766	Uruguay	97	659	33, 103
Canada	20	1, 373	3, 142	All other	31, 104	200	2, 117

Source: Bureau of Foreign and Domestic Commerce.

Wool Manufactures.

Imports of wool manufactures in 1926 amounted to $70,667,000, a decrease of 4.4 per cent compared with 1925. Most classes of imports showed a decrease, those of the classification "Rags, noils, waste, etc.," being 36.2 per cent less, while the imports of wool fabrics were only 4 per cent less than in 1925. Gains were registered in carpets and rugs, wool wearing apparel, and the classification "All other manufactures," that of carpets and rugs showing the greatest increase in value which amounted to 15 per cent over 1925. China and Persia are by far the most important sources of imported carpets and rugs and in 1926 were credited with 47 per cent of the total quantity imported and 60 per cent of total value. The quantity received from China in 1926 was a trifle less than that in 1925 but the value was a little more. However, the imports from Persia totaled 888,000 square yards and were larger than ever received from that country in any previous year. Imports of both woolen and worsted fabrics were less than in 1925 both in quantity and value although the decreases were not great; these goods come chiefly from the United Kingdom.

Exports of wool manufactures registered a decline of 15 per cent from the previous year and were only $4,979,000 in 1926.

Table 30.—Imports and Exports of Wool Manufactures

NOTE.—Where values are not shown for specified classes, figures are included in "all other wool manufactures." Quantities in thousands of pounds, except carpets and rugs, which are in thousands of square yards; values in thousands of dollars.

Article	Quantity					Value				
	1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
Imports, total	-------	-------	-------	-------	-------	**59, 414**	**69, 118**	**69, 310**	**73, 901**	**70, 667**
Wool advanced, including tops	4, 708	3, 905	530	326	99	3, 292	2, 553	448	269	59
Mohair yarns [1]	-------	-------	1, 133	416	327	-------	-------	1, 400	516	372
Wool yarns [1]	3, 604	6, 336	1, 783	717	337	4, 394	8, 294	2, 760	1, 156	534
Rags, noils, wastes, etc	54, 145	27, 109	33, 625	35, 614	29, 046	13, 189	11, 270	16, 327	16, 476	10, 509
Mohair fabrics	383	122	74	109	40	743	243	152	247	79
Wool fabrics	7, 991	11, 350	11, 865	10, 485	10, 400	14, 737	21, 004	20, 694	21, 754	20, 920
Carpets and rugs	2, 028	2, 646	2, 804	2, 939	3, 292	10, 569	13, 952	15, 153	18, 333	21, 099
Wool wearing apparel	-------	-------	-------	-------	-------	9, 975	9, 127	9, 564	13, 081	14, 644
All other manufactures	-------	-------	-------	-------	-------	2, 515	2, 675	2, 811	2, 068	2, 453
Exports, total	-------	-------	-------	-------	-------	**6, 608**	**8, 733**	**7, 090**	**5, 873**	**4, 979**
Rags, noils, waste, etc	5, 519	11, 752	17, 861	8, 998	11, 060	541	856	1, 352	808	965
Wool and mohair fabrics	1, 105	1, 032	637	547	433	1, 978	2, 347	1, 332	1, 133	872
Carpets and rugs	85	92	81	59	96	248	258	222	207	282
Wool wearing apparel	-------	-------	-------	-------	-------	2, 638	2, 845	2, 776	2, 327	1, 748
All other manufactures	-------	-------	-------	-------	-------	1, 203	2, 428	1, 409	1, 398	1, 111

[1] Mohair yarns were included under wool yarns prior to Jan. 1, 1924.

Source: Bureau of Foreign and Domestic Commerce.

KNIT GOODS

SUMMARY.—The year 1926 proved generally satisfactory to knit goods manufacturers—a continuation of conditions prevailing in 1925. The hosiery industry increased its production of full-fashioned goods for which demand appears to be sufficient to absorb the entire capacity. Hosiery retailers continued their hand-to-mouth buying, not wishing to stock novelties which might become unsaleable, nor to assume the burden of carrying stocks. Manufacturers of hosiery refused to carry extensive stocks with the result that many retailers were unable to secure prompt delivery on their orders. Underwear manufacturers also were affected by hand-to-mouth buying; but, despite this, they had a good year. Increased amounts of rayon were used in knit underwear during 1926 as a consequence of improvements in the method of knitting this fiber. Prices of southern and northern knit-underwear mills were more nearly on a parity than ever before. The decline in popularity of sweaters discouraged manufacturers at the beginning of the year, but demand improved later. Prices of knit goods generally followed the downward swing of raw material prices. Both exports and imports of knit goods were lower in 1926 than in 1925 when exports attained the highest point since the record year 1920.

Census Statistics of the Industry.

The classification "knit goods" embraces all establishments whose principal products are made by machine knitting, without regard to whether the yarns used are cotton, wool, silk, or other material. The knitting machinery employed is, in the main, power driven. The industry has expanded greatly within recent years as is evidenced by the figures showing the value of products. In 1914 the value of products of knit-goods establishments was $258,913,000 which increased to $634,074,000 in 1921 and to $848,177,000 in 1923; but decreased slightly in 1925 to $809,960,000. With the exception of the knit outerwear branch this decline is the result of lower prices and not of reduced production. The decrease in the number of establishments reporting is somewhat misleading as a number of mills have consolidated.

Table 31.—Knit-Goods Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	1,006	83,691	56,031	$24,434,497	$51,195,330	$95,833,692	$44,638,362
1909	1,374	129,275	101,319	44,740,223	110,241,053	200,143,527	89,902,474
1914	1,622	150,520	122,919	59,758,151	146,687,458	258,912,903	112,225,445
1919	2,050	172,572	149,438	125,199,820	427,095,570	713,139,689	286,044,119
1921	2,078	161,880	(1)	132,190,349	360,457,833	634,073,895	273,616,062
1923	2,323	194,244	183,675	168,271,584	484,020,075	848,176,734	364,156,659
1925	1,987	186,668	176,630	168,682,840	453,925,780	809,960,213	356,034,433
Per cent change, 1925 from 1923	−14.5	−3.9	−3.8	+0.2	−6.2	−4.5	−2.2

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

In 1925 the value of the output of the principal classes of knit goods was as follows: Hosiery, $411,366,000; outerwear, $147,094,000; underwear, $163,277,000; and knit cloth, $55,454,000. Production of hosiery increased from 97,443,000 dozen pairs in 1923 to 103,707,000 dozen pairs in 1925—rayon and combinations of rayon and silk hosiery largely accounting for the increase. In cotton underwear, production of shirts and drawers decreased while the production of union suits increased; in other underwear the reverse was true. Knit outerwear showed the greatest decline and accounts for almost the entire decrease in value of products of the knit goods industry in 1925 as compared with 1923. This was owing to the fact that knit dresses were much in vogue in 1923 and many mills were employing their machinery on this type of goods. Production of knit cloth was about the same as in 1923.

Table 32.—Production of the Principal Classes of Knit Goods

[Quantity for hosiery, gloves, and mittens, in dozen pairs; underwear and outerwear (including neckties), in dozens of pieces; knit cloth in square yards. All quantities in thousands; values in thousands of dollars]

Article	Quantity				Value			
	1914	1921	1923	1925	1914	1921	1923	1925
Total value					**258,913**	**634,074**	**848,177**	**809,960**
Hosiery (total)	**75,165**	**80,241**	**97,433**	**103,707**	**98,099**	**290,489**	**378,733**	**411,366**
Cotton	61,410	50,894	57,620	50,403	59,631	94,256	105,945	87,784
All wool	1,986	1,514	1,177	639	3,875	8,876	8,157	3,579
Cotton and wool mixed	3,059	4,467	7,891	4,235	4,799	16,421	25,353	13,863
All pure thread silk	3,660				18,553			
Full fashioned	(1)	1,019	1,739	1,693	(1)	19,527	25,301	24,085
Seamless	(1)	3,112	2,901	443	(1)	24,684	20,628	3,625
Pure thread silk with lisle or cotton tops, heels, and toes—								
Full fashioned	(2)	(2)	(2)	9,913	(2)	(2)	(2)	114,825
Seamless	(2)	(2)	(2)	7,667	(2)	(2)	(2)	55,100
All rayon	(1)	2,047	2,758	556	(1)	7,067	10,647	1,779
Rayon with lisle or cotton tops, heels, and toes	(2)	(2)	(2)	11,795	(2)	(2)	(2)	35,896
Silk and rayon	(2)	(2)	(2)	3,334	(2)	(2)	(2)	18,527
Silk or rayon mixed with other fibers	5,050	17,188	23,347	9,098	11,239	119,658	182,702	44,802
Infants' hose, seamless	(1)	(1)	(1)	3,930	(1)	(1)	(1)	7,502
Underwear (total value)					**93,119**	**134,865**	**160,902**	**163,277**
Cotton shirts and drawers	19,736	10,283	11,558	9,367	43,098	34,993	44,325	36,822
Other shirts and drawers	2,023	1,429	1,188	1,895	14,425	14,883	17,358	24,023
Cotton union suits	5,469	8,154	9,412	10,249	25,618	59,516	74,130	73,700
Other union suits	804	1,130	1,334	1,252	9,978	25,473	25,088	25,515
Infants' underwear	(1)	(1)	(1)	(1)	(1)	(1)	(1)	3,217
Outerwear (total value)					**46,178**	**137,005**	**197,158**	**147,094**
Sweaters, sweater coats, jerseys, etc	2,249	2,748	4,455	3,714	26,195	69,426	111,159	84,899
Bathing suits	274	909	972	695	2,034	11,202	17,554	16,322
Neckties	(1)	1,757	3,324	2,705	(1)	9,137	12,317	8,961
Gloves and mittens	2,470	2,685	2,094	1,301	10,520	25,209	16,768	9,083
Athletic or golf hose	(1)	(1)	(1)	573	(1)	(1)	(1)	3,960
Infants' sets	(1)	(1)	(1)	(1)	(1)	(1)	(1)	9,064
Other outerwear	(1)	(1)	(1)	(1)	7,429	22,031	39,360	14,806
Knit cloth (total value)					(3)	**45,299**	**68,521**	**55,454**
Jersey cloth	(3)	29,911	26,054	27,979	(3)	25,983	29,688	26,674
Tricolette	(3)	8,201	12,650	14,192	(3)	9,430	13,679	9,777
Other knit cloth	(3)	(1)	(1)	(1)	(3)	9,886	25,153	19,003
Contract work	(1)	(1)	(1)	(1)	3,649	6,862	13,498	(1)
All other products	(1)	(1)	(1)	(1)	17,868	19,555	29,366	32,769

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[1] Figures not available.

[2] Included under the class "silk or rayon mixed with other fibers" prior to 1925.

[3] No comparable data available, but production in 1914 included 16,816,000 square yards of knit cloth, valued at $5,049,000.

Source: Bureau of the Census.

Market Condition and Price Movement.

In 1926 the knit-goods industry as a whole was in a favorable position, according to trade reports. New styles, increased hand-to-mouth buying, and a declining raw-material market combined to make the retailer unwilling to carry large stocks or to order far in advance. As a consequence, manufacturers were unable to anticipate the requirements of the market as they had been accustomed to do in the past.

The hosiery section during 1926 continued to enjoy the generally satisfactory conditions existing in 1925, with several of the larger manufacturers showing increased net profits over the previous year, according to trade reports. Hand-to-mouth buying on the part of retailers was much in evidence, as a result of which many merchants were unable to obtain delivery on their orders as quickly as they wished. Manufacturers generally refused to produce for stock, waiting until the orders were received before making up the goods—a situation for which the demand for novelties was partly responsible. The expansion in full-fashioned goods continued with no overproduction in evidence. Hosiery prices as a rule were slightly lower than in 1925. The fall in raw-cotton prices was reflected in the price of cotton hosiery. Similarly rayon hosiery decreased in price as a result of lower yarn values. Silk hosiery prices were fairly stable throughout the year, although many manufacturers were forced to increase slightly their prices on women's hosiery as a consequence of the requisite lengthening of the silk boot to conform with prevailing styles in women's dresses.

Table 33.—Prices of Hosiery and Underwear

NOTE.—Prices are per dozen pairs or garments; they are New York wholesale prices except for rayon and silk hosiery which are average unit values of the exported products.

Hosiery and underwear	1922	1923	1924	1925	1926
Men's cotton half hose, combed yarn	$1.65	$1.78	$1.80	$1.75	$1.62
Women's cotton hosiery, silk mercerized, mock seam	2.73	2.62	2.41	2.38	2.33
Women's cotton hosiery, combed yarn, 16-ounce, mock seam	1.78	1.82	1.75	1.71	1.69
Rayon hosiery (average export value)	4.29	4.41	4.42	3.96	3.76
Silk hosiery (average export value)	9.83	9.98	9.20	8.62	9.37
Men's cotton shirts and drawers	6.31	7.20	8.12	7.50	6.84
Merino shirts and drawers, 60 per cent wool	30.17	33.00	33.00	33.00	30.00
Men's union suits, 33 per cent worsted	27.93	29.40	30.13	30.38	30.38

Sources: Wholesale prices, Bureau of Labor Statistics, Department of Labor; export values, Bureau of Foreign and Domestic Commerce, Department of Commerce.

Knit-underwear manufacturers obtained a volume of business in 1926 which compared favorably with 1925, although profits were somewhat smaller. As in the case of hosiery, there was an increasing tendency on the part of retailers to buy on a hand-to-mouth basis, which caused many manufacturers to sell directly to the retailer in order to eliminate the time necessary for orders to pass through wholesalers. Other significant developments were the increased use of rayon in the manufacture of knit underwear, the advertising campaign carried on by knit-goods manufacturers to acquaint the public with the advantages of knit underwear, the introduction on the market of printed patterns on knit underwear which gives that class of goods a certain style appeal heretofore absent, and the manufacture of garments composed of a knit shirt and woven trunks. Prices of cotton underwear throughout the year showed a downward trend in sympathy with raw cotton prices.

The knit-outerwear branch was in a somewhat uncertain position in 1926. Many retailers believed that sweaters would not be as popular as formerly and at the beginning of the year closed out their sweater departments. As a result, many manufacturers discontinued the production of this class of goods rather than produce merchandise for which the demand appeared small. The belief was widespread that the style of wearing "lumberjacks" would retard the sales of knit goods. However, before the close of the year, a stronger demand was noted for sweaters; and many dealers were unable to fill their requirements on account of the small size of their stocks. Bathing suit buyers continued to operate on a cautious basis in anticipation of lower prices.

Foreign Trade.

Exports of knit goods during 1926 were valued at $26,860,000 which was 16 per cent less than in 1925. Wool knit goods, reflecting increased shipments of bathing suits and sweaters, rose from $544,000 in 1925 to $725,000 in 1926. Hosiery exports declined; in 1926 shipments of hosiery (cotton, rayon, and silk) amounted to 6,957,000 dozen pairs, valued at $22,111,000, as compared with 8,298,000 dozen pairs with a value of $27,039,000 in 1925. The decline in hosiery exports is owing to a decrease of about one-half in the purchases of the United Kingdom, our best customer for this class of knit goods. Tariff legislation was primarily responsible for a decline in exports to that market from 2,142,000 dozen pairs in 1925 to 1,017,000 dozen pairs in 1926. Increased purchases were made by Canada, Cuba, Australia, and South Africa, countries which rank among our best markets. Some of the Latin American countries took less hosiery as a result of the growing ability of their domestic industries to supply the demand. As indicative of the progress being made in the production of hosiery in countries heretofore obtaining their requirements from this country, it is interesting to note that in 1926 the United States exported 7,962 circular hosiery knitting machines. England, Australia, Brazil, Argentina, Mexico, and Canada taking large numbers. However, American hosiery has attained a preeminent position in foreign markets and no doubt will continue to find a steady sale among the class of trade that can afford the better qualities. American hosiery is regarded generally as superior to that produced in other countries.

Imports of knit goods declined from $13,363,000 in 1925 to $12,889,000 in 1926. All classes decreased except cotton knit gloves which increased about 19 per cent in value. Imports of all classes of hosiery, sweaters, etc., declined—evidence of the ability of American manufacturers to meet the demands of the domestic trade. England supplied the bulk of the imports of wool knit goods while Germany held a dominant position in the cotton knit goods trade. Practically all of the 1,659,000 dozen pairs of cotton knit gloves imported in 1926 were supplied by Germany. Imports of silk hosiery (shown in Table 34 under "silk knit goods") totaled only 8,718 dozen pairs, valued at $131,543 as against 12,023 dozen pairs worth $138,550 in 1925; France was the principal supplier of this class of hosiery.

Table 34.—Knit Goods: Exports and Imports

Class	Quantity (1,000 dozen pairs)[1]					Value (thousands of dollars)				
	1922	1923	1924	1925	1926	1922	1923	1924	1925	1926
Imports, total [2]						**13,701**	**10,823**	**10,808**	**13,363**	**12,889**
Cotton knit gloves	1,775	1,158	1,365	1,659	2,111	5,360	4,034	4,247	5,488	6,514
Cotton hosiery	1,358	612	531	563	497	2,141	1,327	1,409	1,942	1,612
Other cotton knit goods							371	291	294	291
Wool hosiery	[3] 754	502	486	529	372	[3] 4,898	2,945	2,924	3,695	2,674
Other wool knit goods						[3] 701	1,784	1,600	1,609	1,554
Silk knit and crocheted goods						[3] 528	363	261	268	245
Exports, total [2]						**25,884**	**25,761**	**24,627**	**32,087**	**26,860**
Cotton underwear						6,186	5,025	3,741	3,828	3,214
Cotton hosiery	4,793	5,160	4,826	5,534	4,745	9,222	10,525	9,096	10,494	8,407
All other cotton knit goods						547	530	611	677	765
Wool knit goods						388	375	451	544	725
Rayon hosiery	1,439	1,113	845	1,561	1,252	6,173	4,906	3,732	6,177	4,709
Silk hosiery	343	441	755	1,202	960	3,369	4,399	6,947	10,368	8,995

[1] Quantity for certain items not available.

[2] Totals include minor items not listed.

[3] Figures for wool and silk knit goods for 1922 are imports for consumption, details for general imports not being avilable prior to Sept. 22, 1922.

Source: Bureau of Foreign and Domestic Commerce.

SILK AND RAYON MANUFACTURES

SUMMARY.—The silk-manufacturing industry maintained its activity during 1926, the average monthly consumption of raw silk being 41,796 bales. Rayon production rose from 51,792,000 pounds to 65,750,000 pounds and the imports for consumption increased from 5,441,000 pounds to 9,351,000 pounds. The price trend of raw silk was generally downward, from an average of $6.71 for Kansai No. 1 in January to $5.59 in December. Raw silk imports amounted to 66,422,000 pounds, the highest volume on record, and a gain of 4 per cent over the previous year. Imports of silk manufactures increased 10 per cent to $40,570,000, while exports decreased 2 per cent and were valued at $17,788,000.

Table 35.—Silk and Rayon Industries

Industry, section, and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
Silk manufactures:							
United States—							
1899	483	65, 416	53, 565	$20, 982, 194	$62, 406, 665	$107, 256, 258	$44, 849, 593
1909	852	99, 037	92, 100	38, 570, 085	107, 766, 916	196, 911, 667	89, 144, 751
1914	902	108, 170	111, 417	47, 108, 469	144, 442, 321	254, 011, 257	109, 568, 936
1919	1, 369	126, 782	173, 748	108, 226, 330	388, 469, 022	688, 469, 523	300, 000, 501
1921	1, 565	121, 378	(1)	113, 395, 626	337, 558, 799	583, 418, 756	245, 859, 957
1923	1, 598	125, 234	206, 020	126, 849, 454	479, 038, 263	761, 322, 119	282, 283, 856
1925	1, 659	132, 509	212, 609	142, 733, 539	484, 122, 527	808, 979, 399	324, 856, 872
Paterson, N. J.—							
1921	593	16, 666	(2)	17, 954, 052	(2)	87, 332, 529	(2)
1923	614	16, 830	(2)	20, 482, 777	(2)	112, 100, 378	(2)
1925	691	16, 368	(2)	22, 043, 617	(2)	110, 848, 379	(2)
Rayon (yarns and sheets, excluding fabrics):							
1923	8	14, 401	25, 424	16, 383, 987	12, 093, 522	59, 051, 916	46, 958, 394
1925	12	19, 077	66, 806	22, 921, 583	18, 415, 493	87, 940, 937	69, 525, 444

[1] Not called for in schedule for 1921. [2] Not available.

Source: Bureau of the Census.

Census Statistics of the Industry.

Although entirely dependent upon foreign sources for its raw material, the silk manufacturing industry of the United States is by far the largest in the world.

The output of manufactured products during 1925, the last year for which figures are available, was valued at $808,979,000, an increase of 6 per cent over the previous census year 1923. The production in Paterson, N. J., the chief center of the industry, declined slightly, being valued at $110,848,000 in 1925. The production of all-silk fabrics amounted to 384,125,000 square yards in 1925, a gain of 41 per cent over 1923.

Table 36.—Production of the Principal Classes of Silk Goods

Class	Quantity (thousands of units)				Value (thousands of dollars)			
	1914	1921	1923	1925	1914	1921	1923	1925
Total value					**254, 011**	**583, 419**	**761, 322**	**808, 979**
Broad silks:								
All-silk ...square yards	[1] 142, 713	230, 903	271, 820	384, 125	96, 690	284, 761	332, 843	426, 000
Silk mixed ...do	[1] 73, 320	47, 508	104, 402	98, 391	41, 030	56, 296	123, 240	103, 121
Velvets ...do	[1] 16, 318	6, 410	9, 109	6, 078	8, 570	16, 000	23, 880	14, 525
Plushes ...do	[1] 9, 115	5, 501	7, 117	925	10, 136	12, 126	17, 218	[2] 2, 352
Upholstery and tapestry ...do	[1] 478	1, 276	3, 799	2, 675	840	3, 826	10, 636	5, 037
Thrown silk for sale (organzine, tram, and crêpe twist) ...pounds	4, 070	6, 430	8, 433	10, 863	16, 024	47, 071	67, 417	71, 639
Spun silk for sale ...do	1, 607	4, 737	3, 486	3, 489	4, 577	17, 115	14, 729	15, 203
Machine twist, sewing, and floss silks ...pounds	1, 562	1, 888	1, 752	1, 624	9, 682	17, 921	18, 190	14, 991
Ribbons					38, 201	53, 598	52, 122	52, 061
Fringes, gimps, braids, and binding					4, 099	22, 792	27, 834	21, 307
All other products, including contract work					24, 163	51, 912	73, 214	82, 743

[1] Quantity for 1914 given in linear yards.

[2] In addition 772,881 square yards of silk and silk mixed plushes, valued at $1,872,500, were reported by establishments engaged primarily in the cotton-goods and woolen-goods industries.

Source: Bureau of the Census.

Production in 1926.

There are no census figures available on the production of silk products in 1926, but the deliveries of raw silk to the mills indicated that the 1925 rate of activity was continued throughout the following year. (Table 37.) The average monthly deliveries during 1926 were 41,796 bales, a very slight increase over the average of 41,779 bales delivered during the preceding year. The trend of consumption was generally downward during the early months of the year, from 46,148 bales in January to 34,099 during May, the low month of the year. An improvement then occurred, and consumption gradually increased to a maximum of 47,768 bales in October. During November the deliveries were approximately the same, but during December they dropped to 39,771 bales.

The production of rayon increased from 51,792,000 pounds in 1925 to 65,750,000 during 1926, a gain of 27 per cent. (Table 38.) Despite this enormous increase the imports for consumption rose from 5,441,000 to 9,351,000 pounds, making the approximate consumption 75,101,000 pounds in 1926, 31 per cent greater than during the preceding year.

Table 37.—Approximate Deliveries of Raw Silk to Mills, and Machinery Activity

NOTE.—An asterisk (*) indicates the minimum and a dagger (†) the maximum month of each year.

Month	Approximate deliveries of raw silk to mills						Machinery activity—per cent of active hours [1]					
	1921	1922	1923	1924	1925	1926	Spinning spindles		Broad silk looms		Narrow silk looms	
							1925	1926	1925	1926	1925	1926
Monthly average	**26,941**	**30,635**	**29,868**	**30,592**	**41,779**	**41,796**	**97.9**	**88.5**	**88.7**	**84.8**	**59.5**	**62.3**
January	22,176	33,842	34,680	32,925	39,885	46,148	*82.1	101.7	80.9	†93.9	*55.6	59.1
February	*16,725	*22,107	36,231	29,804	*37,529	42,476	83.1	†103.4	*80.2	92.6	56.5	59.2
March	26,942	26,651	33,515	26,543	45,157	39,400	85.3	101.1	83.4	92.0	58.5	62.5
April	31,933	24,247	†38,193	25,985	40,040	37,276	86.9	82.9	90.0	84.0	59.4	65.8
May	31,307	33,284	24,509	28,272	38,266	*34,099	101.1	*75.0	86.0	80.2	†62.0	65.0
June	32,217	29,529	27,824	*23,164	39,575	37,644	102.9	78.8	88.8	*77.2	61.0	61.7
July	†33,762	24,996	28,573	30,982	44,013	39,425	103.0	81.7	89.3	78.7	61.4	59.5
August	33,557	34,772	33,547	29,888	44,047	45,943	101.8	82.0	89.8	78.9	60.0	61.8
September	31,769	34,212	26,929	†36,658	41,684	43,962	104.0	87.5	91.2	80.8	60.8	66.6
October	26,816	†37,471	25,917	35,794	†46,815	†47,768	†112.9	87.5	93.7	82.6	61.3	†69.3
November	26,515	35,467	25,225	33,125	41,848	47,634	107.0	89.7	†96.4	89.2	59.1	63.6
December	20,930	31,042	*23,274	33,961	42,484	39,771	104.5	90.4	95.2	87.9	58.7	*53.4

[1] Compiled by the Silk Association of America from manufacturers representing about 50 per cent of the industry. The figures represent the percentage of active hours to the possible total at normal working time, single shift, and are weighted averages.

Source: Statistical bureau of the Silk Association of America.

Table 38.—Apparent Domestic Consumption, Production, and Importations of Rayon Yarns, 1911–1926

[In thousands of pounds]

Calendar year	Approximate consumption	Approximate domestic production [1]	Imports for consumption [2]	Calendar year	Approximate consumption	Approximate domestic production [1]	Imports for consumption [2]
1911	2,120	320	1,800	1919	9,246	8,174	1,072
1912	2,633	1,120	1,513	1920	11,720	10,240	1,480
1913	3,872	1,566	2,306	1921	18,276	15,000	3,276
1914	4,972	2,445	2,527	1922	26,522	24,406	2,116
1915	7,111	4,111	3,000	1923	39,182	36,153	3,029
1916	6,709	5,744	965	1924	39,674	37,720	1,954
1917	7,230	6,697	533	1925	57,233	51,792	5,441
1918	5,949	5,828	121	1926	75,101	65,750	9,351

[1] Figures from an authoritative private source, except 1923 and 1925, which are from the Bureau of Census.
[2] Figures from commerce and navigation reports of the Bureau of Foreign and Domestic Commerce.
Source: United States Tariff Commission.

Price Movement.

The price of raw silk, Kansai No. 1, during 1926, averaged $5.94, a drop of $0.40 per pound from the 1925 average, and only slightly higher than the 1924 average, which was the lowest since the war. The January average was $6.71, the high for the year. Prices fell to $5.49 in April, from May to August were relatively steady, and in September advanced to an average of $6.12. During the last three months they again weakened and the December average was $5.59, a net loss of $1.12 as compared with the previous January.

From January to July rayon prices were steady at $2 per pound for 150-denier A-quality yarns. From July to October the prices declined to $1.65 and in November they were further reduced to $1.45.

Table 39.—Raw Silk: Prices per Pound at New York

Yearly average or year	Kansai, No. 1	China, Best No. 1	Month	Kansai, No. 1				China, Best No. 1			
				1923	1924	1925	1926	1923	1924	1925	1926
1891–1895	$4.00		January	$8.18	$7.35	$6.08	$6.71	$8.63	$8.43	$6.49	$7.09
1896–1900	3.82		February	8.77	6.86	6.22	6.66	8.84	8.08	6.58	7.07
1901–1905	3.82		March	8.62	6.22	5.83	6.03	9.33	7.34	6.39	6.76
1906–1910	4.09		April	9.31	5.63	5.98	5.49	9.41	6.56	6.31	6.30
1911–1915	3.51		May	8.43	4.80	6.17	5.73	9.60	5.98	6.30	6.05
1916–1920	6.76	$7.96	June	7.69	5.00	6.37	5.88	9.16	5.64	6.44	6.25
1921–1925	6.75	7.41									
			July	7.15	5.39	6.32	5.78	8.55	5.81	6.56	6.24
1913	3.64	4.46	August	7.35	6.08	6.47	5.98	8.36	6.37	6.70	6.07
1920	8.28	9.94	September	9.80	5.44	6.61	6.12	10.63	6.53	7.00	6.17
1921	6.03	6.51	October	7.84	5.73	6.66	5.78	10.10	6.41	7.16	6.15
1922	7.22	8.03	November	7.84	6.17	6.57	5.49	8.90	6.45	7.13	6.07
1923	8.23	9.18	December	7.74	6.32	6.81	5.59	8.60	6.44	7.07	5.97
1924	5.92	6.67									
1925	6.34	6.68									
1926	5.94	6.35									

Source: Bureau of Labor Statistics, Department of Labor.

Foreign Trade.

The imports of raw silk in 1926 totaled 66,422,000 pounds, the highest volume on record, and a gain of 4 per cent over the previous year, which was the highest up to that time. The value of the 1926 imports was $392,760,000 and the average import price per pound was $5.91 compared with $6.21 in 1925. Japan furnished 81 per cent of the imports, compared with 78 per cent in 1925 and 86 per cent in 1924. The takings from China were approximately the same as in 1925. The chief import item among the manufactured products was silk fabrics, of which Japan furnished the major portion. Exports of silk manufactures declined 2 per cent compared with the preceding year, owing to the smaller exports of silk hosiery.

The charts and tables which follow show our imports of unmanufactured silk and both our exports and imports of silk manufactures for considerable periods of years.

Chart VIII.—IMPORTS OF UNMANUFACTURED SILK

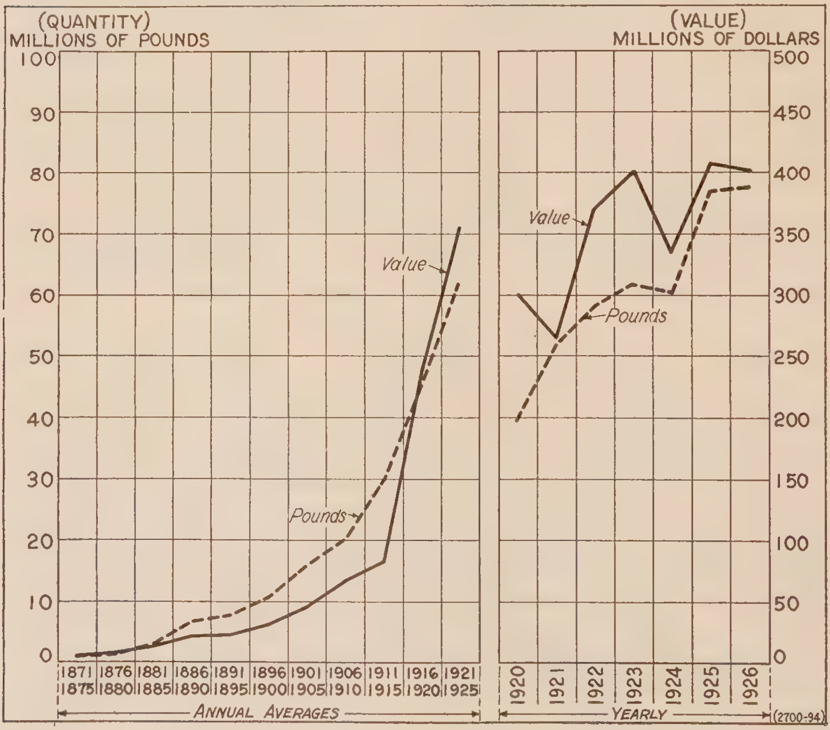


Chart IX.—IMPORTS AND EXPORTS OF SILK MANUFACTURES

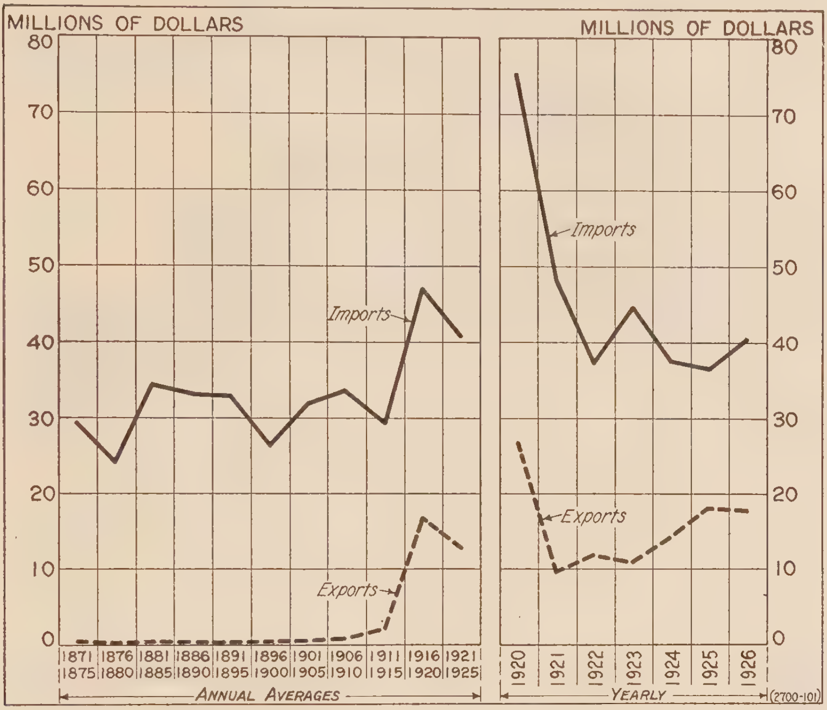


Table 40.—Imports of Unmanufactured Silk

Yearly average[1] or year	All unmanufactured silk		Year[1]	Unmanufactured silk					
	Quantity	Value		Total unmanufactured	Raw silk			Cocoons	Waste
					Total	Japan	China		
	1,000 pounds	*1,000 dollars*		*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*
1871–1880	1, 340	6, 390	1910	23, 457	20, 363	11, 958	4, 084	49	3, 045
1881–1890	5, 304	16, 775	1913	32, 102	26, 049	17, 425	5, 511	158	5, 894
1891–1900	9, 259	26, 843	1914	34, 546	28, 595	20, 196	5, 927	1	5, 950
1901–1905	15, 798	45, 968	1915	31, 053	26, 031	18, 217	5, 097	51	4, 970
1906–1910	20, 281	67, 415	1916	40, 872	32, 455	24, 375	6, 367	69	8, 349
1911–1915	30, 190	82, 703	1917	43, 428	36, 503	29, 396	6, 934	103	6, 822
1916–1920	45, 641	235, 332	1918	48, 721	32, 865	27, 075	5, 751	220	15, 635
1921–1925	62, 030	356, 287	1919	55, 522	44, 817	33, 727	9, 099	852	9, 853
1920	39, 660	301, 038	1920	39, 660	30, 058	22, 904	5, 932	201	9, 401
1921	52, 332	264, 723	1921	52, 332	45, 355	31, 704	9, 587	128	6, 849
1922	58, 467	371, 629	1922	58, 467	50, 712	40, 029	8, 378	117	7, 638
1923	61, 954	401, 655	1923	61, 954	49, 482	33, 354	12, 262	410	12, 062
1924	60, 603	335, 041	1924	60, 603	51, 281	44, 307	4, 681	132	9, 189
1925	76, 795	408, 386	1925	76, 795	63, 764	49, 685	10, 341	95	12, 936
1926	77, 666	402, 676	1926	77, 666	66, 422	53, 793	10, 250	111	11, 133

[1] Fiscal years to 1915, inclusive; calendar years thereafter.

Source: Bureau of Foreign and Domestic Commerce.

Chart X.—IMPORTS OF RAW SILK BY COUNTRIES, AND TOTAL IMPORTS OF OTHER UNMANUFACTURED SILK

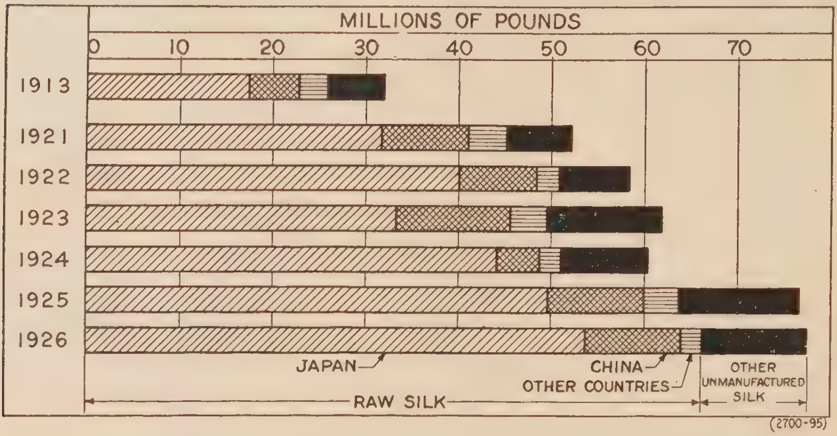


Table 41.—Imports and Exports of Manufactured Silk

[In thousands of dollars. Before 1911 artificial silk or rayon was included]

Yearly average [1]	All silk manufactures		Year	All silk manufactures		Silk fabrics [2]	
	Imports	Exports		Imports	Exports	Imports	Exports
1871–1880	26,867	297	1919	54,746	23,903	29,265	10,225
1881–1890	33,841	259	1920	75,419	26,821	35,551	8,775
1891–1900	29,585	268	1921	48,276	9,672	24,331	3,338
1901–1905	32,215	425	1922	37,413	11,824	17,923	3,870
1906–1910	33,723	835	1923	44,597	11,136	17,930	2,659
1911–1915	28,301	2,210	1924	37,699	14,148	13,462	2,711
1916–1920	47,109	16,735	1925	36,719	18,182	14,255	3,152
1921–1925	40,941	12,992	1926	40,570	17,788	18,627	3,870

[1] Fiscal years, 1871 to 1915.

[2] Pile fabrics are not included in the imports of silk fabrics for any year nor in exports after 1921.

Source: Bureau of Foreign and Domestic Commerce.

Table 42.—Imports and Exports of Manufactured Silk, by Classes

Class	Quantity (thousands of units)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Exports, total value					**11,136**	**14,148**	**18,182**	**17,788**
Broad silks yards	1,837	2,359	2,533	3,201	2,659	2,711	3,152	3,870
Hosiery doz. pairs	441	755	1,202	960	4,399	6,947	10,368	8,995
All other					4,078	4,490	4,662	4,923
Imports, total value					**44,597**	**37,699**	**36,719**	**40,570**
Spun silk or schappe silk yarn pounds	1,475	1,198	1,382	582	4,614	3,963	5,130	1,824
Broad fabrics do	2,763	2,377	2,745	3,739	17,930	13,462	14,255	18,627
Wearing apparel					5,947	7,779	6,980	8,334
Laces, embroideries					4,872	4,653	3,532	4,259
All other					11,233	7,843	6,821	7,525

Source: Bureau of Foreign and Domestic Commerce.

MANUFACTURES OF MISCELLANEOUS FIBERS

SUMMARY.—Imports of manila fiber increased 11 per cent in 1926, while sisal and henequen imports were 13 per cent smaller. The price of jute showed a sharp decline during the year and quotations for manila fiber and sisal were also lower in December than in the previous January.

PRODUCTION AND PRICE MOVEMENT

The branches of the textile industry using vegetable fibers other than cotton are chiefly dependent on foreign sources for raw materials, and the import statistics therefore are indicative of their activity. Manufactures of these miscellaneous fibers are classified under three industries—cordage and twine, jute goods, and linen goods.

Cordage and Twine.

There are no available figures showing the production of these industries for 1926, but the 1925 census gives the output of cordage and twine plants as $100,448,000, compared with $88,283,000 in 1923, an increase of 14 per cent. These figures do not include the production of penal institutions. Binder twine was the most important individual item, amounting to 235,605,000 pounds, worth $29,567,000. The production of rope, cable, and cordage was valued at $46,016,000.

Table 43.—Cordage and Twine Industry

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	105	13, 114	33, 657	$4, 113, 112	$26, 632, 006	$37, 849, 651	$11, 217, 645
1909	112	14, 629	47, 269	5, 304, 390	29, 315, 402	41, 941, 541	12, 626, 139
1914	105	15, 769	55, 272	6, 995, 596	43, 605, 473	59, 761, 486	16, 156, 013
1919	120	17, 622	66, 556	14, 700, 061	89, 705, 282	133, 366, 476	43, 661, 194
1921	118	14, 593	(1)	12, 923, 694	46, 480, 950	75, 355, 705	28, 874, 755
1923	121	16, 382	72, 371	15, 148, 157	53, 642, 371	88, 283, 038	34, 640, 667
1925	118	15, 400	77, 563	14, 018, 511	66, 847, 504	100, 447, 564	33, 600, 060

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Jute and Linen Goods.

The establishments engaged primarily in the manufacture of jute, other than cordage and twine, increased the value of their output from $25,422,000 in 1923 to $27,156,000 in 1925. The production figures for 1926 are not available.

In 1925 the manufacture of linen goods showed a total value of products of $11,157,000, a slight decline compared with a value of $11,390,000 during 1923.

Table 44. Principal Products of the Cordage and Twine, Jute Goods, and Linen Goods Industries [1]

[Quantities in thousands of pounds except linen woven goods and jute bagging, which are in thousands of square yards; values in thousands of dollars]

Articles	Quantity (thousands of units)				Value (thousands of dollars)			
	1914	1921	1923	1925	1914	1921	1923	1925
Total value					**83,235**	**101,071**	**125,095**	**138,760**
Rope, cable, and cordage:								
Manila hemp	104,909	71,842	92,266	101,006	12,860	13,243	14,926	21,791
Sisal	39,899	37,282	59,829	43,094	2,991	5,001	8,168	6,469
Henequen	13,534	4,254	6,259	5,223	1,042	530	836	778
Cotton	13,244	13,132	15,801	20,316	2,540	4,381	6,425	7,317
All other	26,815	8,554	34,764	58,033	2,097	1,694	5,646	9,661
Twine, binder [2]	302,287	236,409	239,800	235,605	24,095	31,643	23,491	29,567
Twine, other	105,250	80,359	120,571	83,291	13,997	17,619	26,817	21,498
Yarns for sale (principally jute yarns)	75,875	54,055	99,134	97,025	8,320	9,864	19,213	19,387
Linen thread	5,708	1,494	4,064	2,815	3,409	2,874	5,723	4,614
Linen woven goods	10,800	7,678	6,544	7,847	1,766	3,474	2,812	2,933
Jute bagging	131,828	54,505	35,252	40,871	6,441	4,515	2,610	4,482
All other products, including contract work					3,677	6,235	8,427	10,262

[1] In addition, cordage and twine, jute goods, and linen goods to the following values were reported as subsidiary products by establishments engaged primarily in other industries: For 1923, $12,063,681; for 1921, $5,890,252; for 1914, $5,480,558. Of these amounts, $10,951,722 for 1923, $4,958,466 for 1921, and $3,683,348 for 1914 represent the values of the rope, cordage, and twine made by cotton mills. Corresponding values for 1925 have not yet been calculated, but will be shown in the final reports of the 1925 census.

[2] Not including binder twine made in penal institutions, which in 1923 manufactured 55,570,000 pounds. No data were collected for 1925.

Source: Bureau of the Census.

The prices of sisal were steady throughout the first 10 months of the year ranging from 9 cents to 9.3 cents per pound, but in November and December dropped to 8.6 cents and 8.3 cents per pound, respectively. Manila, fair current shipment, averaged 17.9 cents in January and dropped off to 12.4 cents per pound in June. It then strengthened considerably and rose to an average of 15.5 cents per pound in December. Raw jute declined from a January average of 13 cents per pound to a December average of 7 cents.

FOREIGN TRADE

The imports of Manila fiber increased by 11 per cent and amounted to 69,270 tons during 1926. There was also an increase in the jute imports. The importations of sisal and henequen, on the other hand, showed a decline of 13 per cent. Woven fabrics of flax, hemp, or ramie were imported in larger quantity in 1926, but the value was 13 per cent smaller than in 1925.

Exports of binder twine were about one-third less than in 1925 and were very much smaller than before the war. Exports of rope and cordage and of jute manufactures also showed moderate decreases as compared with 1925.

Table 45.—Imports and Exports of Vegetable Fibers and Manufactures Thereof, Except Cotton and Rayon

Principal classes	Quantity				Value in thousands of dollars			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
IMPORTS								
Jute, unmanufactured……tons	93, 163	67, 904	64, 551	68, 763	7, 217	7, 742	12, 309	14, 788
Burlaps……1,000 pounds	421, 383	575, 653	625, 816	598, 977	29, 421	59, 396	85, 028	82, 238
Jute bags or sacks……do	(1)	35, 413	48, 070	47, 395	3, 346	3, 312	5, 946	5, 972
Jute manufactures, other	--------	--------	--------	--------	648	3, 889	5, 208	10, 340
Flax, unmanufactured……tons	10, 752	3, 889	5, 254	6, 822	3, 361	2, 004	3, 576	3, 261
Hemp, unmanufactured……do	6. 639	1, 294	3, 197	2, 300	1, 225	447	1. 467	860
Woven fabrics of flax, hemp, or ramie……1,000 pounds	--------	31, 154	23, 255	24, 084	19. 166	34, 237	26, 472	22, 923
Handkerchiefs……dozen	--------	3, 447	2, 724	3, 810	2, 351	4, 838	4, 111	4, 948
Laces, embroideries, etc	--------	--------	--------	--------	3, 857	6, 002	6, 051	6, 422
Other manufactures of flax, hemp, or ramie	--------	--------	--------	--------	6, 450	9, 611	10, 944	14, 243
Other vegetable fibers, raw:								
Manila……tons	71, 922	81, 715	62, 633	69, 270	9, 910	14, 345	18, 195	18, 282
Sisal and henequen……do	140. 315	113, 815	136, 591	119, 009	15, 813	16, 274	23, 329	21, 762
Kapok……do	[2] 2, 210	8, 395	9, 620	7, 945	[2] 571	4, 317	4, 903	4, 863
Other……do	25, 017	21, 874	29, 213	26, 642	2, 229	2, 672	4, 067	4, 106
Binding twine……1,000 pounds	9, 499	15, 142	11, 024	7, 451	729	1, 661	1, 309	933
Hats, bonnets of straw, grass, etc.:								
Materials for……1,000 yards	--------	1,281,545	996, 802	1,417,171	5, 507	5, 593	3, 798	4, 885
Hats, bonnets, and hoods……thousands	--------	21, 366	24, 354	29, 571	4, 181	4, 504	7, 904	10, 271
EXPORTS								
Binder twine……1,000 pounds	94, 403	45, 197	54, 247	36, 500	7, 027	5, 139	7, 107	4, 712
Other rope and cordage, except jute……1,000 pounds	--------	8, 401	7, 061	6, 698	--------	1, 288	1, 456	1, 355
Jute manufactures	--------	--------	--------	--------	1, 505	4, 197	3, 740	3, 581

[1] Quantity in 1911–1914 averaged 50,217,000 pounds annually.

[2] Four-year average, 1911–1914.

Source: Bureau of Foreign and Domestic Commerce.

WEARING APPAREL

SUMMARY. —Manufacturers of wearing apparel continued a conservative production policy in 1926. Wholesale sales of clothing were smaller than in 1925, while retail sales in all the important branches of the wearing apparel trade increased with the exception of women's suits which showed a decline of 39 per cent. Woolens still hold a slight lead in popularity over worsteds in both men's and women's wear.

Census Statistics of the Industry.

The census classification "textile wearing apparel" includes all classes of wearing apparel not knitted, made from textile fibers. The manufacture of men's and women's outer garments—the two main branches of the industry—accounts for almost three-quarters of the total value, the balance representing such specialized articles as hats and caps; suspenders, garters, and elastic webbing; men's furnishing goods; corsets; millinery and lace goods; and other apparel. In the statistics of the clothing industry custom tailoring shops are not included.

Table 46.—Textile Wearing Apparel Industries

Industry and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
Wearing apparel, made from purchased textile fabrics, total:							
1914	14,953	510,595	117,911	250,114	673,013	1,297,273	624,260
1923	16,904	499,413	132,317	568,139	1,852,229	3,443,940	1,591,711
1925	14,862	465,583	119,158	533,924	1,739,376	3,239,978	1,500,602
Clothing, men's, not elsewhere specified:[1]							
1914	4,830	173,747	35,252	86,828	230,032	458,211	228,179
1923	4,607	194,820	52,642	235,487	584,804	1,178,715	593,911
1925	4,000	174,332	44,749	203,847	557,471	1,087,238	529,767
Clothing, men's—buttonholes:							
1914	139	672	205	326	90	638	548
1923	37	334	105	409	103	804	701
1925	30	327	87	347	71	658	587
Shirts:							
1914	792	51,972	17,117	19,170	50,665	95,815	45,150
1923	934	51,672	14,050	37,943	139,354	241,331	101,977
1925	840	49,864	13,884	35,674	129,754	225,963	96,209
Furnishing goods, men's not elsewhere classified:[2]							
1914	551	22,459	5,840	8,416	31,593	52,453	20,860
1923	454	18,958	5,470	14,810	57,237	102,952	45,715
1925	419	21,094	4,977	17,438	69,861	120,868	51,006
Collars, men's:							
1914	35	10,100	3,359	4,494	6,566	18,531	11,965
1923	37	10,449	5,050	7,960	18,370	42,666	24,297
1925	28	7,187	4,497	5,503	11,792	27,588	15,795
Gloves and mittens, cloth, not made in textile mills:[2]							
1923	129	8,864	3,143	5,296	18,292	28,126	9,833
1925	118	7,798	3,516	4,810	15,735	25,660	9,925
Suspenders, garters, and elastic woven goods made from purchased webbing:[3]							
1923	100	3,458	809	2,892	13,934	24,297	10,363
1925	93	3,835	876	3,072	16,500	27,504	11,004
Hats and caps, other than fur-felt, wool-felt, and straw:							
1914	580	7,322	1,313	4,508	9,268	18,593	9,325
1923	651	7,313	1,782	9,594	22,250	42,811	20,561
1925	579	6,552	1,876	9,243	22,699	43,823	21,124
Clothing, women's, not elsewhere specified:[1]							
1914	5,564	168,907	27,874	92,574	252,345	473,888	221,543
1923	7,046	133,195	27,704	176,446	809,561	1,406,684	597,123
1925	6,127	126,466	24,316	175,045	724,299	1,293,705	569,406
Corsets:							
1914	167	20,496	6,962	7,977	19,587	40,551	20,964
1923	216	16,104	5,901	13,258	38,416	78,048	39,632
1925	185	14,525	8,394	12,394	37,808	77,115	39,307
Millinery and lace goods, not elsewhere classified:							
1914	2,079	45,274	12,488	21,545	57,676	114,160	56,484
1923	2,693	54,246	15,661	64,044	149,908	297,505	147,598
1925	2,443	53,603	11,986	66,551	153,386	309,856	156,471

[1] Custom-tailoring shops are not included, no matter how large.
[2] "Gloves and mittens, cloth," included with "Furnishing goods, men's," for 1914.
[3] Because of a change in classification, no comparable statistics can be given for 1914.

Source: Bureau of the Census.

The United States had 14,862 establishments employing 465,583 wage earners engaged in the manufacture of all classes of textile wearing apparel (other than knit goods, fur-felt, wool-felt, straw hats, and fur goods) compared with 16,904 establishments and 499,413 wage earners in 1923. These establishments reported a production valued at $3,239,978,000 in 1925 against $3,443,940,000 in 1923—a decrease of 5.9 per cent. In both years the cost of the materials used in manufacture represented 54 per cent of the total value of the finished output.

The manufacture of men's and women's outer clothing, exclusive of custom-made clothing, accounted for $2,381,601,000 or 73.5 per cent of the total value of wearing apparel in 1925 compared with $2,586,203,000 or 75.1 per cent in 1923. The value of production in all branches of the wearing-apparel industry except millinery and lace goods, men's furnishing goods, suspenders, garters, and elastic webbing, and hats, other than straw, decreased in 1925 as compared with 1923.

In addition to the output of wearing apparel, made from purchased fabrics, the fur-felt, wool-felt, and straw-hat industries, as well as fur goods, produce goods which properly come under the head of wearing apparel and are included in the summary given in table 47.

Table 47.—Value of Products of the Textile Wearing Apparel, Hat, and Fur-Goods Industries [1]

[Thousands of dollars]

Industry	1914	1921	1923	1925	Per cent change from 1923
Total	**$1,405,644**	**$2,936,218**	**$3,758,448**	**$3,611,412**	**−3.9**
Clothing (total)[2]	932,737	1,958,165	2,586,203	2,381,601	−7.9
Women's, n. e. s.[2]	473,888	1,022,743	1,406,684	1,293,705	−8.0
Men's, n. e. s.[2]	458,211	934,776	1,178,715	1,087,238	−7.8
Men's, buttonholes	638	646	804	658	−18.2
Men's shirts	95,815	203,944	241,331	225,963	−6.4
Furnishing goods, men's	52,453	77,527	102,952	120,868	+17.4
Collars and cuffs	18,531	29,571	42,666	27,588	−35.3
Suspenders, garters, and elastic woven goods	24,433	44,935	[3] 24,297	[3] 27,504	+13.2
Hats and caps (total)	83,331	123,182	159,277	160,992	+1.1
Hats, fur-felt	37,350	52,614	75,253	80,066	+6.3
Hats, wool-felt	1,944	4,964	8,643	8,949	+3.5
Hats, straw	25,444	28,617	32,569	28,154	−13.6
All other	18,593	36,987	42,811	43,823	+2.4
Millinery and lace goods, n. e. s	114,160	268,714	297,505	309,856	+4.1
Corsets	40,551	75,600	78,048	77,115	−1.2
Cloth gloves and mittens [4]	(4)	15,213	28,126	25,660	−8.8
Fur goods	43,633	139,366	198,043	[5] 254,265	----------

[1] Each establishment is classified according to its product of principal value.

[2] Not including custom-made clothing.

[3] Owing to changes in classification, figures for 1923 and 1925 are not comparable with those for preceding years.

[4] Not including gloves made in textile mills. This item was under men's furnishings in 1914.

[5] Owing to changes in classification of individual establishments, figures for 1925 are not comparable with those of preceding years.

Source: Bureau of the Census.

Production and Sales, 1926.

The Bureau of the Census collects monthly statistics on garments cut for the following items: Men's and boys' suits, separate trousers, overcoats, and work clothing. Reports from 467 identical establishments manufacturing men's and boys' garments show that the total number of suits cut declined from 16,964,000 in 1925 to 16,388,000 in

1926 and the number of separate trousers from 19,281,000 in 1925 to 18,657,000 in 1926, while the number of overcoats cut increased from 4,443,000 in 1925 to 4,550,000 in 1926. The data on the production of work clothing (overalls, unionalls, coveralls, two-piece suits, work pants, etc., exclusive of work shirts), collected from 158 identical establishments (of which two are now out of business) shows that the number of garments cut increased from 3,005,612 dozens in 1925 to 3,028,515 in 1926. Net shipments of work clothing increased from a monthly average of 217,286 dozen garments in 1925 to 223,806 in 1926 while stocks at the end of the month rose from a monthly average of 326,257 dozen in 1925 to 327,352 dozen in 1926. The foregoing figures probably afford the only statistical basis for comparison of the production of men's clothing in 1925 and 1926.

Wholesale sales of clothing in the New York Federal reserve district, which includes the two large clothing manufacturing centers of New York and Rochester, declined sharply in 1926 as compared with 1925. June was the only month in which 1926 sales exceeded those of 1925. The value of wholesale trade, based on the monthly percentage of increase or decrease, as compared with the corresponding month of 1925 and not on total sales, decreased 17.5 per cent in 1926. In contrast, wholesale trade during 1926 in the St. Louis Federal reserve district, calculated on the same basis, increased 8.5 per cent in value over those of 1925.

Retail sales in department stores in 1926 for the Federal reserve districts of Boston, New York, Philadelphia, Cleveland, Chicago, Dallas, and San Francisco, according to the Federal Reserve Board's index, showed an increase over 1925 of 7.9 per cent in women's dresses and also in misses' ready-to-wear clothing, 7.3 per cent in boys' wear, 6 per cent in men's furnishings, 5.5 per cent in men's clothing, and 3.3 per cent in women's coats. There was a decline of 38.7 per cent in sales of women's suits. Stocks on hand at the end of each month of 1926 in all the aforementioned lines except men's furnishings and boys' wear were in most cases lower than in 1925, showing a growing tendency toward buying for immediate needs.

Manufacturers are showing a tendency to produce garments to wholesale in very definite price ranges. This has tended to simplify the marketing problem and has made for greater efficiency in production.

WAGES AND HOURS OF LABOR

Men's Clothing Industry, 1924 and 1926.

A study of wages, hours, and earnings in 1926 for the men's clothing industry in the United States was recently made by the Department of Labor. The information was obtained from pay rolls and other records of 198 establishments operating 359 shops. These figures cover 17,048 male and 16,611 female wage earners.

Average earnings per hour of males in all occupations in the industry increased from 93.1 cents per hour in 1924 to 93.7 cents per hour in 1926, while earnings of females increased from 54.4 cents in 1924 to 54.8 cents in 1926. However, paradoxically, the average earnings for the industry as a whole, both sexes combined, decreased from 76 cents per hour in 1924 to 75 cents per hour in 1926. This decrease for the industry was owing to the larger percentage of females included in the 1926 study than in that of 1924.

The average full-time earnings per week of males in all occupations increased from $41.14 in 1924 to $41.51 in 1926; that of females increased from $23.94 to $24.28; while that of males and females combined decreased from $33.52 to $33.23. Average full-time hours per week for the industry increased from 44.1 in 1924 to 44.3 in 1926.

Foreign Trade.

Exports of wearing apparel and allied lines, other than knit goods, from the United States were valued at $16,811,000 in 1926, a decrease of 10 per cent. These shipments represent only one-half of 1 per cent of the total United States output of wearing apparel. Exports increased in only a few lines in 1926 as compared with 1925—corsets and brassières, fur-felt hats, silk dresses, skirts and blouses, garters, and arm bands. Despite the relative unimportance of exports of wearing apparel, such products are widely distributed in world markets where quality and style are elements of consideration. Manufacturers of wearing apparel have recently been showing more interest in exporting and are exercising greater care in the selection of foreign representatives and agents which should enable them to compete to better advantage in world markets.

Table 48.—Imports and Exports of Wearing Apparel, Other Than Knit Goods

[In thousands of dollars]

Class	1922	1923	1924	1925	1926
Imports, total	**15,143**	**16,771**	**19,771**	**20,604**	**25,647**
Cotton	5,370	[1] 6,537	6,668	5,744	6,877
Linen	244	252	544	371	264
Wool	[2] 4,150	4,397	5,040	7,777	10,416
Silk	[2] 5,380	5,584	7,518	6,713	8,089
Exports, total	**11,586**	**13,720**	**13,335**	**12,741**	**11,036**
Cotton, for men and boys:					
Shirts	1,684	2,962	2,819	2,497	2,340
Underwear, not knit	568	865	824	973	842
All other	1,990	2,775	2,704	2,624	2,340
Cotton, for women and children:					
Corsets	1,924	1,746	1,903	1,967	2,180
All other	1,488	1,230	1,112	1,078	598
Wool, for men and boys	1,160	1,519	1,656	1,210	639
Wool, for women and children	1,089	951	669	573	385
Silk blouses, dresses, and skirts	959	947	761	905	1,033
Silk wearing apparel, all other	723	725	888	914	677

[1] Figures not comparable with those for other years, owing to omission in 1923 of certain embroidered garments from the Philippines.

[2] Figures for silk and wool wearing apparel are imports for consumption.

Source: Bureau of Foreign and Domestic Commerce.

United States imports of wearing apparel and allied lines, other than knit goods, were valued at $41,224,000 in 1926 compared with $33,910,136 in 1925—an increase of 22 per cent. Hats, bonnets, and hoods of straw, grass, etc., and wool wearing apparel, other than knit goods, each accounted for about 25 per cent of the total imports in 1926 and each showed a gain in value of approximately 30 per cent over that of 1925. About $8,089,000 worth of silk wearing apparel was imported in 1926, as well as cotton, linen, and silk handkerchiefs to the value of $8,494,000.

LEATHER AND LEATHER PRODUCTS

LEATHER

SUMMARY.—The year 1926 was a period of comparatively steady prices for raw stock and leather. Leather production and consumption on the whole showed a healthy increase. The firmly intrenched policy of hand-to-mouth buying brought about further reductions in stock on hand during the year. The outstanding feature of the year was the increased demand for fancy leathers of every description in women's shoes. This forced the tanners of these types of leather to adopt an ultraconservative policy in regard to carrying stocks of finished leather. Prices of domestic hides and skins were generally on a lower level than during the previous year. The goat and kid upper leather tanners increased their production 17 per cent without materially increasing stocks of finished leather on hand. Leather exports were quite well maintained in the face of serious competition in European markets. Raw stocks of cattle, calf, and kip leather showed a further decline, while other stocks increased.

POSITION OF THE INDUSTRY

The tanning industry is divided into four main groups, producing the following types of leather: (1) Sole, belting, side, upper, patent, harness, bag, and upholstery leather (utilizing cattle hides); (2) calf, and kip upper leather; (3) goat and kid upper and fancy leather; (4) sheep and lamb upper, lining, glove, and fancy leather.

Table 1.—Leather and Its Manufactures

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products [2]	Value added by manufacture
				In thousands of dollars			
1914	6, 758	307, 060	311, 194	169, 358	753, 135	1, 104, 595	351, 460
1919	6, 397	349, 362	382, 537	363, 453	1, 713, 806	2, 610, 231	896, 425
1921	4, 813	280, 071	(1)	314, 412	934, 398	1, 544, 186	609, 788
1923	4, 868	344, 545	412, 998	388, 630	1, 083, 345	1, 880, 085	796, 740
1925	4, 264	315, 288	413, 759	356, 246	1, 015, 123	1, 767, 581	752, 458

[1] Not called for in schedule for 1921.
[2] This value includes much duplication.
Source. Bureau of the Census.

Table 2.—Tanning Industry of the United States

Year	Establishments	Wage earners (average number)	Primary horse power	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
1899	1, 306	52, 109	88, 192	22, 591	155, 000	204, 038	49, 038
1909	919	62, 202	146, 725	32, 103	248, 279	327, 874	79, 595
1914	741	55, 936	171, 734	31, 915	284, 245	367, 202	82, 956
1919	680	72, 476	217, 761	88, 205	646, 521	928, 592	282, 070
1921	608	48, 955	(1)	57, 741	277, 725	383, 365	105, 640
1923	597	59, 703	230, 187	73, 784	321, 750	488, 898	167, 148
1925	532	53, 043	222, 678	66, 762	306, 634	462, 014	155, 380

[1] Not called for in schedule for 1921.
Source: Bureau of the Census.

According to the census, manufacturers of leather and leather products in 1925 produced goods valued at $1,767,000,000 (a figure which involves considerable duplication). The output of the tanning industry itself was valued at $462,000,000, a decline of 5½ per cent from 1923.

The United States easily ranks first among countries in the tanning of leather. Our production is estimated to be equal to that of all the rest of the world combined. The United States tans about 30 per cent of the world's available supply of cattle hides. In spite of the large domestic supply of cattle hides, calfskins, and sheepskins, our tanning industry imports a large volume of raw stock, including practically the entire amount of goat and kid skins tanned.

PRODUCTION

Number of Hides and Skins Used.

There were 127,213,000 hides and skins tanned in 1926, an increase of approximately 7 per cent, as compared with 1925. Of the total amount of raw stock used 79 per cent of the pieces went into shoe leathers; 12 per cent into fancy, bookbinding, and kindred leathers; 5 per cent into glove leather; 3 per cent into belting, bag, harness, and upholstery leathers; and the balance, 1 per cent, into production of miscellaneous leathers. The number of hides and skins represented in the production of leather in 1925 and 1926, respectively, was as follows: Cattle hides, 22,817,000 and 22,270,000; calf and kip skins, 13,877,000 and 15,745,000; goat and kid skins, 42,486,000 and 49,776,000; sheep and lamb skins (exclusive of chamois and other fleshers), 33,089,000 and 31,665,000; other hides and skins, 7,513,000 and 7,757,000.

Quantity of Leather Produced.

According to the census, 13,615,000 sides, backs, and bends of sole leather were produced in 1926, a decline of 8 per cent as compared with 1925, and a decline of 25 per cent as compared with 1914. Hides entering into the production of rough belting butts numbered 858,000, a slight increase as compared with the previous year. The figure for belting leather production in 1926 given in Table 3 includes the total of rough butts produced and the production of curried belting butts, involving considerable duplication.

Table 3.—Leather Production by Principal Classes

[All figures in thousands of units specified]

Class	1914	1921	1922	1923	1924	1925	1926
Sole leather (cattle)..........sides..	18, 098	18, 063	17, 735	18, 732	14, 640	14, 879	13, 615
Belting leather..........butts..	974	1, 195	1, 014	1, 471	1, 231	1, 572	1, 852
Side, upper and patent (cattle)..........sides..	10, 049	14, 874	22, 904	24, 226	23, 183	23, 966	24, 154
Harness leather..........do....	2, 944	811	1, 377	1, 555	1, 269	1, 288	1, 169
Bag, case, and strap..........do....	1, 005	821	1, 249	1, 200	1, 056	1, 175	1, 183
Upholstery [1]..........hides..	654	414	716	743	649	626	601
Calf and kip..........skins..	16, 587	14, 988	15, 686	18, 474	16, 455	13, 878	15, 744
Goat and kid..........do....	34, 627	35, 058	48, 905	47, 354	35, 895	42, 485	49, 776
Sheep and lamb..........do....	[2] 27,952	24, 655	36, 573	43, 795	38, 781	33, 089	31, 665

[1] Includes "whole-hide grains" and "machine buffed" only. For 1914 "whole-hide grains" only.

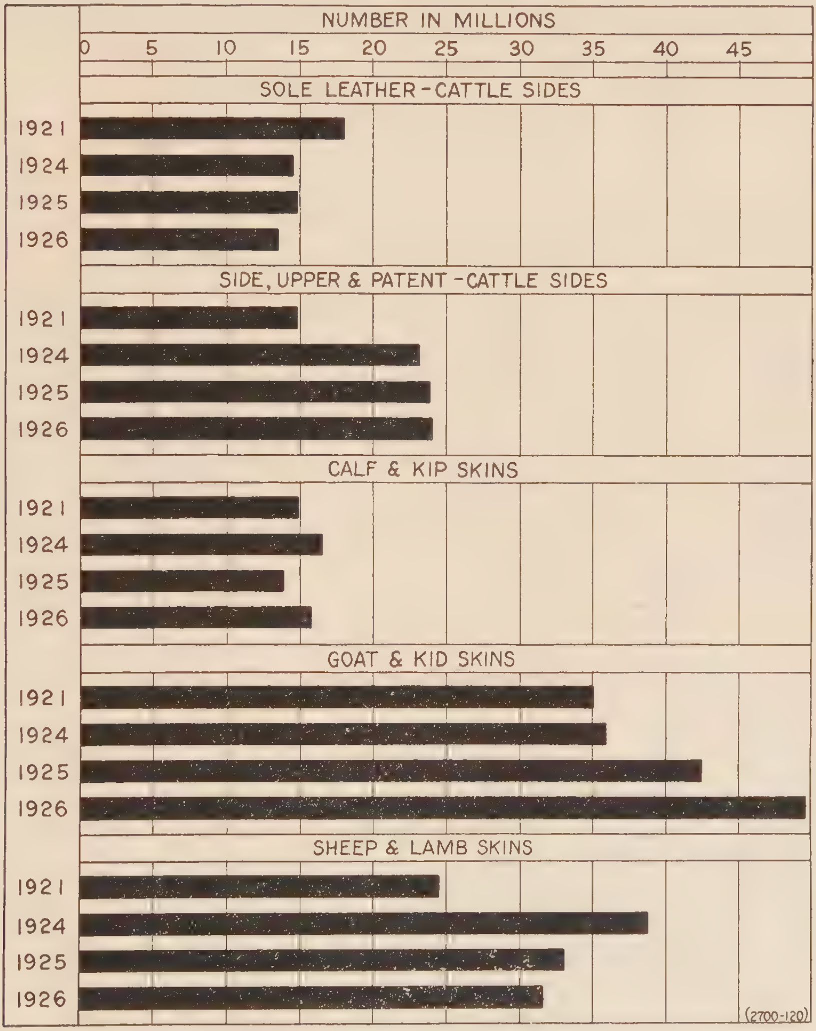
[2] Figures are not strictly comparable with later years, owing to the omission of certain classes in 1914 which were not called for on the schedule.

Source: Bureau of the Census.

The production of cattle side upper leather, including patent, showed an increase of 2 per cent as compared with 1925, and an increase of 140 per cent over 1914. Of this total patent leather amounted to 8,678,000 sides, which was 1 per cent more than in 1925.

The production of harness leather was 9 per cent less than in 1925, while the output of bag, case, and strap leather showed a very slight increase over 1925. Production of upholstery leather amounted to 601,000 hides, a decline of 4 per cent.

Chart I.—PRODUCTION OF PRINCIPAL CLASSES OF LEATHER



Calf and kip leather produced in 1926 amounted to 14 per cent more than the previous year, while the output of goat and kid leather increased 17 per cent. Ninety-five and one-half per cent of the calf and kip leather and 98 per cent of the goat and kid leather went into shoe upper leathers, the balance into fancy, glove, etc.

The production of sheep and lamb leather amounted to 31,665,000, a decline of 4 per cent as compared with 1925. Of this total shoe leathers represented 40 per cent; glove leathers, 13 per cent; hat sweats, 10 per cent; the balance being shearlings, roller leather, etc.

Monthly Production of Shoe Leather.

Table 4 shows the production of the five leading types of shoe leather by months for the years 1925 and 1926.

Table 4.—Production of Shoe Leather, by Months [1]

[All figures in thousands; unit for sole leather is back, bend, or side; for cattle and kip, the side; and for others, the skin]

Month	Sole leather		Side upper leather		Calf and whole kip		Goat and kid		Sheep and lamb	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
Total	**14,879**	**13,615**	**15,338**	**15,476**	**13,621**	**14,943**	**40,887**	**48,415**	**14,124**	**13,973**
January	1,288	1,057	1,317	1,255	1,481	1,281	3,287	4,072	1,436	970
February	1,203	998	1,404	1,223	1,304	1,168	3,242	4,135	1,397	913
March	1,313	1,113	1,365	1,219	1,304	1,312	3,590	4,770	1,339	1,289
April	1,321	1,106	1,243	1,141	1,084	1,276	3,136	4,332	1,242	1,159
May	1,286	1,059	1,109	1,064	833	1,126	3,290	4,133	1,041	985
June	1,331	1,180	1,156	1,213	917	1,174	3,251	3,804	925	1,061
July	1,293	1,115	1,233	1,300	1,104	1,261	2,776	3,512	1,096	1,159
August	1,279	1,183	1,322	1,334	1,086	1,234	3,262	3,773	1,134	1,292
September	1,107	1,152	1,308	1,428	1,076	1,235	3,311	3,696	1,192	1,384
October	1,318	1,226	1,371	1,523	1,115	1,291	3,868	3,782	1,330	1,329
November	1,074	1,170	1,213	1,380	1,039	1,233	3,414	3,842	1,018	1,187
December	1,066	1,256	1,297	1,396	1,278	1,352	4,460	4,564	974	1,245

[1] Figures for patent leather not included.

Source: Bureau of the Census.

PRICE MOVEMENT AND MARKET CONDITIONS

Hides and Skins.

At the opening of the year there was more than a seasonal break in all classes of domestic hides and skins, with the exception of calfskins, while South American hides continued more than seasonally strong. The slump in the domestic market continued until June 1 with calfskins showing only a seasonable decline, while South American markets dropped sharply. Domestic hide prices in May were at a lower level than even the pre-war averages. The seasonal advance in the summer still left hide and skin prices below the corresponding period of the previous year, calfskins also sharing in the decline. The strength in the South American hide market was largely attributable to keen European buying, particularly on the part of Russia. The weakness in the American hide and skin market was largely because of hand-to-mouth buying on the part of American tanners and lack of interest on the part of European buyers. There were indications at the close of the year that, owing to the gradual economic reconstruction in Europe and the better position of the European tanners, which have caused an increased world demand for raw stock, American hide and skin price levels must advance. Our exports of domestic hides and skins for 1926 amounted to 75,638,901 pounds, a slight increase as compared with 1925. The average market prices of typical hides and skins are given in Table 5.

Table 5.—Wholesale Prices of Hides and Skins

[Prices per pound except for goat and sheep skins]

Period	Packer heavy native steer, Chicago	Packer heavy Texas steer, Chicago	Packer light native cow, Chicago	No. 1 heavy country cow, Chicago	No. 1 Chicago city calfskin	Packer Colorado steer, Chicago
1902–1906	$0.132	$0.137	$0.116	$0.103	$0.139	----------
1907–1911	.145	.145	.128	.110	.162	----------
1912–1916	.209	.198	.200	.169	.213	----------
1917–1921	.294	.270	.264	.198	.423	----------
1922–1926	.157	.147	.115	.104	.190	$0.178
1920	.316	.275	.292	.192	.409	----------
1921	.135	.133	.111	.077	.185	----------
1922	.178	.167	.152	.111	.189	.155
1923	.167	.148	.137	.105	.171	.140
1924	.144	.136	.114	.093	.200	.127
1925	.160	.150	.146	.118	.217	.140
1926	.140	.135	.130	.095	.175	.127
1924:						
January–March	.143	.135	.109	.088	.192	.121
April–June	.118	.116	.097	.081	.177	.106
July–September	.148	.138	.132	.092	.206	.135
October–December	.168	.157	.151	.116	.260	.148
1925:						
January–March	.158	.152	.143	.120	.237	.143
April–June	.143	.140	.137	.113	.205	.131
July–September	.173	.156	.158	.124	.217	.143
October–December	.162	.152	.143	.115	.206	.145
1926:						
January	.150	.150	.135	.115	.200	.140
February	.130	.125	.115	.100	.200	.120
March	.125	.120	.120	.090	.180	.115
April	.115	.115	.110	.090	.165	.110
May	.125	.125	.125	.100	.170	.120
June	.135	.125	.130	.095	.175	.125
July	.135	.150	.135	.090	.170	.115
August	.150	.140	.140	.095	.185	.135
September	.150	.140	.140	.095	.180	.135
October	.160	.150	.145	.105	.180	.145
November	.155	.145	.135	.100	.170	.140
December	.150	.140	.135	.100	.170	.135

Table 5.—Wholesale Prices of Hides and Skins—Continued

Period	Buenos Aires frigoríficos	Bogata dry hides	Goatskins (per skin)		New Zealand pickled super sheepskins per dozen
			Patnas	Hankows	
1902-1906		$0.210			
1907-1911		.208	$0.390	$0.367	
1912-1916	$0.202	.299	.434	.434	
1917-1921	.315	.357	[1] 1.145	[2].995	
1922-1926	.167	.211	.667	.581	$15.70
1920	.316	.330	1.565	1.216	
1921	.145	.135	.641	.509	
1922	.189	.185	.688	.541	16.50
1923	.170	.195	.727	.623	21.50
1924	.145	.195	.613	.525	16.40
1925	.175	.250	.661	.574	14.10
1926	.160	.230	.750	.655	9.95
1924:					
January-March	.155	.185	.667	.562	15.15
April-June	.135	.190	.618	.525	16.15
July-September	.130	.185	.553	.492	16.65
October-December	.170	.215	.615	.526	17.65
1925:					
January-March	.200	.246	.657	.586	21.50
April-June	.160	.243	.601	.533	21.15
July-September	.165	.253	.649	.581	20.85
October-December	.170	.260	.733	.615	22.50
1926:					
January	.190	.250	.790	.630	19.00
February	.170	.250	.801	.650	20.00
March	.160	.235	.790	.620	17.50
April	.165	.230	.770	.600	17.50
May	.150	.225	.680	.660	17.50
June	.150	.220	.680	.670	17.50
July	.145	.220	.770	.660	17.50
August	.150	.225	.750	.670	14.50
September	.160	.230	.750	.680	14.50
October	.170	.225	.750	.680	14.50
November	.165	.240	.750	.680	14.75
December	.170	.230	.770	.670	14.00

[1] Maximum price per skin fixed by the Government during 1918 at $0.91⅔.

[2] Government fixed maximum prices on these skins at $14.50 per dozen from May to December, inclusive, in 1918; the average for that year is based on the quotations during January to April, inclusive.

Source: Pratt Bros., New York.

Leather.

Consumption of shoe leathers in 1926 was considerably better than in 1925, but most of the benefits of the improvement in business were felt in the last three months of the year. During the year upper leather tanners, supplying the producers of the better class of women's shoes, found themselves more and more obliged to produce an infinitely varied line of fancy leathers, with particular stress on the increasing popularity of reptiles.

Leather prices throughout the year were quite steady. Among the outstanding features of 1926 was the increased demand for goat and kid and calf upper, and goat and kid fancy leathers. Patent side upper held its popularity well, showing a slight increase in consumption over the previous year. Sole leather showed a slight gain in demand, and certain types of offal were in such short supply that heavy imports were necessary. The demand for leather generally during the first six months of the year was very disappointing. No. 1 heavy scoured oak backs, tannery-run, were quoted on January 1 at 52 cents per pound, dropped in the spring to 43 cents, rose in the late fall to 53 cents, and closed the year at 51 cents per pound. Heavy union steer backs, tannery-run, opened the year at 43 cents per pound, declined in the spring and summer to 38 cents per pound, rose in the late fall to 44 cents and closed the year at 42 cents per pound. Light union cow backs, tannery-run, opened the year at 43 cents, declined in the spring and summer months to 38 cents, rose in the late fall to 43 cents, and closed the year at 43 cents.

Prices of goat and kid upper held constant throughout the year. One tannage of black kid, medium weight, third grade, of the sorting of 3-foot skins, sold steadily throughout the year at 74 cents per square foot. Four-foot skins, the same grade and weight, sold at 70 cents per square foot; 5-foot skins at 67 cents per square foot; and 7-foot skins at 62 cents per square foot. One selection of patent cattle-side upper was quoted on January 1 at 35 cents per square foot. From February 1 to July 10 this price dropped to 33 cents per square foot. On August 14, the price rose to 35 cents and closed the year at that figure. Sales of sheepskin lining leathers were quiet throughout 1926. Prices dropped early in the year to an average of about 16 cents per square foot, and further declined to 13 and 14 cents in midsummer. There was a slight advance at the close of the year with little improvement in demand. The sheep lining market suffered from a severe competition with kid linings as well as kip linings throughout the year.

Stocks.

Stocks of sole leather in the hands of tanners were reduced by almost one-half during the year 1926 and there were also small reductions in stocks of practically all other kinds of leather except goat and kid. (Table 6.) The supply of sole leather in the hands of tanners was diminished in each month from September, 1925, to December, 1926, and at the end of the latter month amounted to 2,888,000 pieces, which was 42 per cent less than a year earlier. Stocks of other types of leather in the hands of tanners increased in the spring, as is customary at that season and declined in the fall of the year. Inventories of side upper leather decreased 11 per cent during the year and inventories of sheep and lamb leather were reduced by 10 per cent. Stocks of goat and kid leather, on the other hand, were larger in each month of 1926 than in the corresponding months of 1925, and at the end of the year showed an increase of 2.8 per cent as compared with December 31, 1925. Stocks of patent side upper leather were also substantially increased during 1926.

Table 6.—Stocks of Shoe Leather, by Months [1]

[All figures in thousands; unit of sole leather is back, bend, or side; for side upper leather, the side; and for others, the skin]

Month	Sole leather		Side upper leather		Calf and whole kip		Goat and kid		Sheep and lamb	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
January	5, 118	4, 977	1, 836	2, 126	3, 681	4, 086	12, 074	12, 452	2, 423	2, 146
February	5, 009	4, 774	1, 876	2, 149	3, 718	4, 209	12, 040	12, 968	2, 184	2, 042
March	5, 043	4, 617	2, 016	2, 304	3, 881	4, 437	12, 947	13, 196	2, 450	2, 073
April	5, 267	4, 528	2, 239	2, 433	3, 970	4, 458	13, 499	13, 662	2, 375	2, 110
May	5, 528	4, 438	2, 286	2, 265	4, 228	4, 515	13, 856	14, 285	2, 390	2, 183
June	5, 804	4, 251	2, 202	2, 068	4, 088	4, 371	13, 915	14, 750	2, 436	2, 189
July	5, 985	4, 105	2, 166	1, 980	3, 897	4, 110	12, 973	14, 375	2, 296	2, 158
August	6, 015	3, 801	2, 159	1, 947	3, 838	3, 926	12, 636	13, 943	2, 253	2, 063
September	5, 850	3, 477	2, 088	1, 805	3, 897	3, 778	12, 494	13, 629	2, 317	1, 942
October	5, 605	3, 347	1, 996	1, 772	3, 859	3, 729	12, 752	13, 808	2, 288	1, 964
November	5, 359	3, 138	2, 034	1, 743	3, 855	3, 818	12, 891	13, 206	2, 156	2, 116
December	5, 100	2, 888	2, 037	1, 804	3, 979	3, 918	12, 670	13, 022	2, 283	2, 045

[1] Figures for patent leather not included.

Source: Bureau of the Census.

FOREIGN TRADE

Exports of Leather.

The exports of leather in 1926 were valued at $49,814,000, a decline of approximately 4½ per cent as compared with 1925. This loss was occasioned primarily by the decline in sales of sole leather to European markets and the abnormal competition created by the money stringency in Germany and the decline in the French franc. Markets for all the principal lines of upper leather, with the exception of patent side upper, showed healthy growth, particularly in South American and Oriental markets.

Chart II.—EXPORTS OF LEATHER

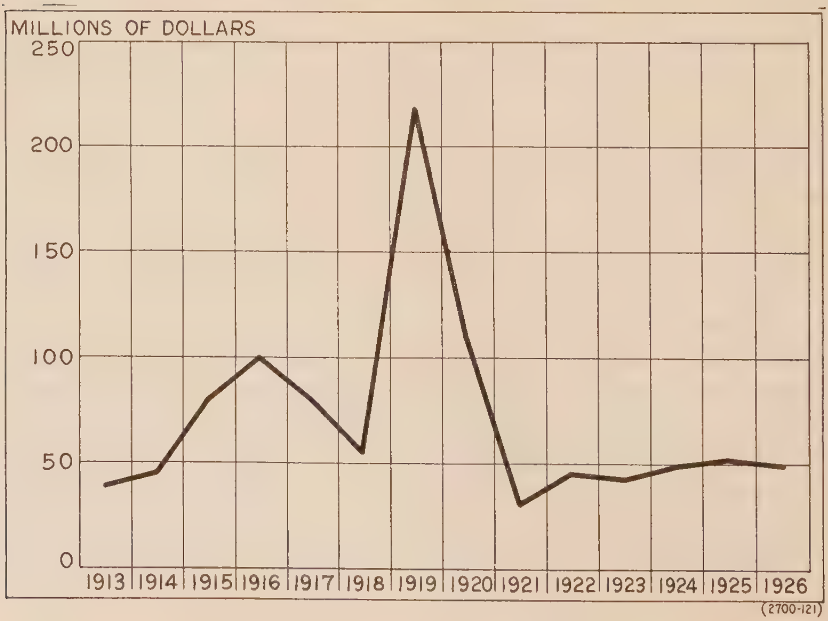


Table 7.—Value of Exports of Leather From the United States

[Calendar years]

Yearly average	Value	Year	Value	Year	Value
1891–1895	$12, 690, 000	1913	$38, 437, 687	1920	$108, 875, 567
1896–1900	18, 936, 000	1914	44, 975, 996	1921	31, 787, 275
1901–1905	24, 628, 000	1915	80, 865, 037	1922	45, 471, 108
1906–1910	40, 479, 000	1916	100, 498, 137	1923	42, 834, 122
1911–1915	49, 477, 000	1917	80, 816, 987	1924	49, 188, 093
1916–1920	112, 820, 000	1918	55, 126, 527	1925	52, 155, 094
1921–1925	44, 287, 000	1919	218, 783, 300	1926	49, 814, 323

Source: Bureau of Foreign and Domestic Commerce.

Table 7 shows changes in the total value of our leather exports since 1921, while Table 8 shows the quantity and value of our exports of each of the principal classes for the past four years.

Table 8.—Exports of Leather From the United States, by Principal Classes

Article	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Total					**42, 834**	**49, 188**	**52, 155**	**49, 814**
Upper leather (except patent):								
Cattle, side upper—								
Grain……sq. ft..	8, 806	13, 661	14, 541	18, 264	2, 266	3, 287	3, 927	4, 620
Finished splits……do....	6, 247	5, 834	4, 082	4, 563	1, 255	1, 033	679	645
Wax and rough splits……lb..	4, 018	3, 714	3, 145	2, 855	1, 029	979	1, 001	840
Calf and whole kip……sq. ft..	17, 155	25, 606	29, 276	31, 726	5, 682	8, 255	9, 935	10, 200
Sheep and lamb……do....	6, 329	7, 996	6, 487	8, 190	687	998	996	1, 155
Goat and kid……do....	42, 218	38, 784	45, 242	48, 546	11, 893	10, 455	12, 579	13, 486
Other upper leather……do....	5, 447	5, 182	4, 629	3, 882	1, 546	1, 406	1, 229	1, 042
Patent upper leather:								
Cattle side……do....	20, 287	34, 258	28, 891	25, 147	6, 813	10, 489	9, 313	7, 883
Goat and kid……do....	4, 385	6, 003	5, 399	3, 235	1, 696	2, 543	2, 447	1, 442
Horse and colt……do....	2, 437	2, 624	2, 055	1, 405	895	976	784	537
Other……do....	3, 062	507	640	827	1, 005	153	185	276
Sole leather……lb..	17, 419	22, 467	19, 327	13, 470	4, 617	5, 085	5, 013	3, 846
Glove leather……sq. ft..	7, 928	6, 211	5, 256	6, 420	1, 120	902	862	1, 012
Other leather					2, 331	2, 626	3, 205	2, 829

Source: Bureau of Foreign and Domestic Commerce.

Table 9 shows the exports of the principal classes of shoe leather to the most important markets. Steady increase of exports to the Far East was shown by most classes of shoe leather. Only about 10 per cent of the total leather exported from the United States during the immediate pre-war years was sold to the Far East. Since the close of the war sales to this area have been steadily increasing and in 1926 about 15 per cent of the total leather exported from the United States was marketed in that territory. The losses in sales of sole leather to Europe were partly offset by increased markets in the Far East. The United Kingdom continues to be the principal market for each of these four major classes of leather.

Table 9.—Exports of Principal Kinds of Leather, by Leading Countries of Destination

[All figures in thousands of unit indicated]

Kind and country	Quantity		Value		Kind and country	Quantity		Value	
	1925	1926	1925	1926		1925	1926	1925	1926
Sole leather	*Lbs.* **19,327**	*Lbs.* **13,470**	*Dolls.* **5,013**	*Dolls.* **3,846**	**Cattle side upper leather**[2, 3]	*Sq. ft.* **18,624**	*Sq. ft.* **22,828**	*Dolls.* **4,606**	*Dolls.* **5,265**
United Kingdom	9,505	3,333	1,809	666	Spain	1,828	3,598	498	928
Canada	1,043	542	358	215	United Kingdom	4,002	4,926	1,020	1,107
Newfoundland and Labrador	324	233	95	73	Canada	1,707	2,767	265	451
China	2,798	3,220	794	949	Cuba	1,976	1,924	366	387
Japan[1]	2,539	3,166	889	1,041	Brazil	507	260	154	77
Philippine Islands	668	976	177	276	Philippine Islands	802	1,429	172	268
Goat and kid upper leather[2]	*Sq. ft.* **45,242**	*Sq. ft.* **48,546**	**12,579**	**13,486**	**Calf and kip upper leather**[2]	**29,276**	**31,726**	**9,935**	**10,200**
Germany	3,497	2,217	1,298	819	Germany	1,249	1,106	497	404
Poland and Danzig	689	1,688	199	460	Italy	391	1,504	160	559
Sweden	1,623	1,000	538	361	Spain	982	1,907	406	648
Switzerland	1,453	1,029	463	313	United Kingdom	12,646	9,604	3,917	2,679
United Kingdom	19,005	22,077	4,965	5,758	Canada	604	1,122	189	374
Canada	2,405	3,850	627	1,058	Cuba	755	1,303	224	388
Australia	321	587	98	280	Japan[1]	1,583	1,749	563	615

[1] Excludes Chosen.
[2] Except patent.
[3] Includes grain and finished splits only.

Source: Bureau of Foreign and Domestic Commerce.

Imports of Hides, Skins, and Leather.

Imports of raw hides and skins for 1926 totaled 368,578,000 pounds, a slight increase as compared with 1925, but still far below the immediate pre-war average. There was a correspondingly slight increase in value as compared with 1925. The average price per pound for imports of hides was 26½ cents as compared with 27 cents for 1925. A marked quantitative gain occurred in imports of calf and kip and goat and kid skins, but there was again a considerable decline in the imports of cattle hides as compared with 1925. Our imports of the several types of raw hides and skins are derived from widely scattered sources. (Table 12.) South America, particularly Argentina, ranks as the chief source of imported cattle hides; and Asia, especially British India and China, of goat skins. New Zealand, Argentina, and Australia are the principal sources of sheep and lamb skins. The large quantity reported as coming from the United Kingdom, represents chiefly reexports of skins originally imported from these same sources. Canada, France, Germany, and Sweden were the principal sources of calfskins.

Chart III.—IMPORTS OF HIDES AND SKINS

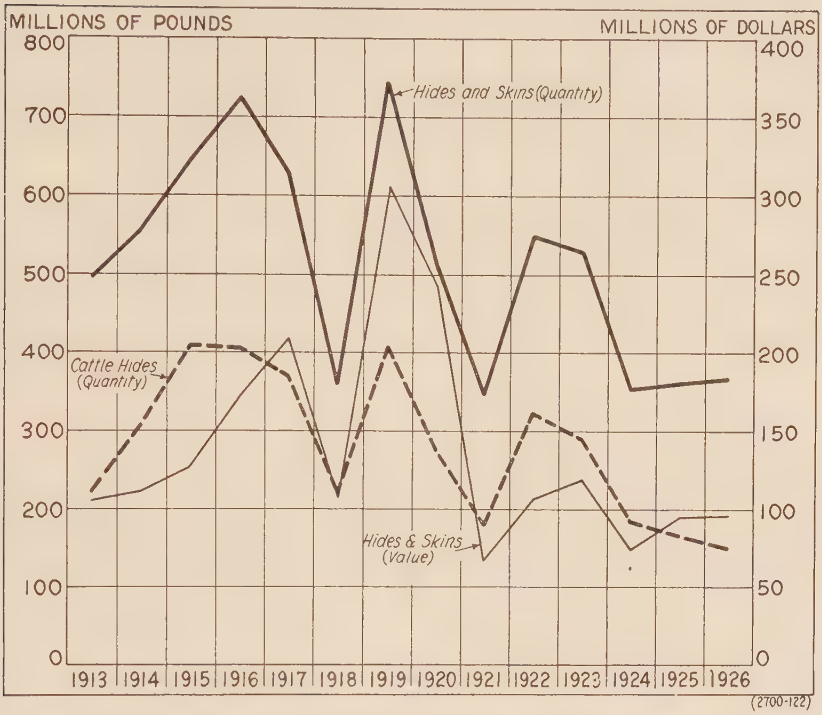


Table 10.—Total Imports of Hides and Skins, Calendar Years 1891–1926

Yearly average	Quantity (1,000 pounds)	Value (1,000 dollars)	Year	Quantity (1,000 pounds)	Value (1,000 dollars)	Year	Quantity (1,000 pounds)	Value (1,000 dollars)
1891–1895	[1] 283, 517	25, 847	1911	424, 877	81, 456	1919	744, 836	306, 510
1896–1900	252, 717	39, 306	1912	615, 105	121, 169	1920	510, 240	243, 878
1901–1905	321, 266	59, 521	1913	497, 879	105, 893	1921	348, 047	67, 561
1906–1910	423, 181	81, 794	1914	556, 195	112, 320	1922	551, 173	107, 039
1911–1915	548, 065	109, 645	1915	646, 271	127, 389	1923	531, 576	118, 917
1916–1920	594, 869	208, 153	1916	727, 310	172, 603	1924	356, 552	75, 052
1921–1925	429, 956	93, 066	1917	631, 066	209, 730	1925	362, 432	96, 764
			1918	361, 891	108, 044	1926	368, 578	96, 811

[1] Year 1895 only.

Source: Bureau of Foreign and Domestic Commerce.

Table 11.—Imports of Hides and Skins into the United States, by Classes

Yearly average or year [1]	Quantity (in thousands of pounds)					Value (in thousands of dollars)				
	Cattle hides	Calf and kip	Sheep and lamb	Goat and kid	All other	Cattle hides	Calf and kip	Sheep and lamb	Goat and kid	All other
1911-1915	282, 882	77, 958	66, 980	86, 242	34, 023	49, 864	20, 242	11, 464	21, 538	6, 537
1916-1920	335, 709	39, 903	81, 152	93, 871	44, 235	90, 625	17, 100	28, 884	59, 988	11, 555
1921-1925	229, 808	44, 416	61, 247	72, 760	21, 726	33, 592	10, 560	15, 220	29, 629	4, 065
1920	275, 325	35, 132	82, 749	80, 205	36, 829	85, 475	19, 251	38, 225	88, 640	12, 286
1921	180, 186	47, 938	45, 854	63, 126	10, 943	23, 259	10, 363	8, 014	23, 871	2, 053
1922	324, 475	55, 521	64, 571	80, 938	25, 667	47, 098	11, 910	11, 004	32, 818	4, 208
1923	291, 969	48, 698	76, 109	85, 853	28, 947	46, 605	11, 370	17, 587	37, 730	5, 626
1924	185, 614	41, 112	58, 047	52, 234	19, 545	24, 304	10, 559	16, 039	20, 529	3, 622
1925	166, 793	28, 812	61, 650	81, 648	23, 529	26, 695	8, 599	23, 459	33, 196	4, 814
1926	150, 419	45, 195	59, 188	87, 605	26, 171	22, 103	11, 588	18, 795	39, 084	5, 242

[1] All figures calendar years.

Source: Bureau of Foreign and Domestic Commerce.

Imports of leather registered a further large increase in 1926, and were valued at $28,622,334, as compared with $22,412,000 in 1925, nearly four times the value of the average pre-war imports. Imports of all important classes of leather increased measurably. The increase of calf and kip and goat and kid uppers was especially significant. Increased imports from Germany played an important part in the total increase in leather imports.

Table 12.—Imports of Principal Kinds of Hides and Skins, by Principal Countries of Origin

Kind and country	Quantity (1,000 pounds)		Value (1,000 dollars)	
	1925	1926	1925	1926
Cattle hides	**166,793**	**150,419**	**26,695**	**22,102**
France	3,324	2,277	768	452
Canada	38,433	37,217	4,891	4,331
Mexico	1,795	686	217	85
Cuba	3,337	363	496	50
Argentina	88,673	78,471	15,195	12,237
Brazil	3,560	525	306	65
Colombia	6,646	4,995	1,308	959
Uruguay	2,210	7,180	397	1,182
Kip and calf skins	**28,812**	**45,195**	**8,599**	**11,588**
France	3,947	5,472	1,233	1,505
Germany	543	5,397	225	1,554
Italy	95	1,262	27	324
Latvia	1,301	1,892	548	828
Sweden	2,016	3,591	615	916
Switzerland	885	2,006	280	580
Canada	7,295	9,146	1,420	1,539
Uruguay	212	6	61	2
British India	159	24	41	6
Sheep and lamb skins	**61,650**	**59,188**	**23,459**	**18,795**
United Kingdom	11,206	8,743	4,455	3,192
Argentina	10,148	10,011	3,625	2,812
Brazil	2,263	2,178	1,123	1,092
Uruguay	1,315	3,142	464	845
Australia	3,513	2,708	1,044	555
New Zealand	15,017	16,912	6,272	5,032
British South Africa	2,721	3,111	892	1,052
Goat and kid skins	**81,648**	**87,605**	**33,196**	**39,084**
Spain	2,253	2,917	1,771	2,224
United Kingdom	2,187	1,380	1,037	837
Mexico	4,579	4,666	1,905	1,806
Argentina	4,975	3,908	1,792	1,359
Brazil	3,903	4,115	2,524	2,539
British India	31,798	36,899	11,091	14,100
China	9,475	12,453	4,309	6,020
Dutch East Indies	1,716	2,279	1,163	1,885
British Africa	3,546	2,016	1,106	647

Source: Bureau of Foreign and Domestic Commerce.

LEATHER MANUFACTURES

SUMMARY.—Production of shoes in 1926 amounted to about 324,500,000 pairs, which was larger than in the two preceding years but was considerably less than the record production of 1923. The output of women's shoes was 5 per cent greater than in 1925, while production of canvas, satin, and other fabric shoes was much reduced. Prices of boots and shoes remained practically unchanged throughout 1926, averaging about the same as in the three preceding years.

Exports of leather manufactured goods were valued at $18,528,000 in 1926, which was 10 per cent less than in 1925 and was also smaller than in any other recent year except 1922. Exports of footwear decreased about 15 per cent and glove exports were only about one-half as large as in 1925, whereas exports of practically all other types of leather manufactures increased during the year.

POSITION OF THE INDUSTRY

The census of manufactures shows that the total value of products of the leather industries group was $1,768,000,000 in 1925 of which the value of leather manufactured products was $1,306,000,000.

Of the manufactured products the boot and shoe industry represented the major portion or 70.8 per cent; boot and shoe cut stock and findings, not made in boot and shoe factories, 10.4 per cent; trunks, suitcases, and bags, 4.7 per cent; pocketbooks, purses, and cardcases, 3.3 per cent; gloves and mittens, leather, 2.8 per cent; belting, leather, 2.4 per cent; saddlery and harness, 2.3 per cent; and leather goods not elsewhere specified, the balance of over 3 per cent in 1925.

As compared with the 1923 census statistics, a slight decrease is noted in the value of products of all branches except boot and shoe findings, which showed an increase of 8 per cent, and pocketbooks, purses, and cardcases, which increased almost one-third.

Table 13.—Leather Manufactures: Totals and Selected Individual Industries

Year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
1914	6, 017	251, 124	139, 460	137, 443	468, 890	737, 393	268, 503
1919	5, 717	276, 886	164, 776	275, 248	1, 067, 285	1, 681, 639	614, 354
1921	4, 205	231, 116	[1]	256, 671	656, 673	1, 160, 821	504, 148
1923	4, 271	284, 842	182, 811	314, 846	761, 595	1, 391, 187	629, 592
1925	3, 732	262, 245	191, 081	289, 484	708, 489	1, 305, 567	597, 078
1914							
Belting, leather	151	2, 951	7, 385	2, 070	15, 480	23, 036	7, 556
Saddlery and harness	2, 551	12, 969	10, 362	7, 996	33, 086	53, 559	20, 473
Trunks, suitcases, and bags	561	9, 911	7, 510	5, 540	13, 626	26, 472	12, 846
1923							
Belting, leather	169	3, 160	9, 075	3, 895	24, 569	37, 723	13, 154
Saddlery and harness	472	6, 617	7, 761	6, 916	24, 460	42, 113	17, 653
Trunks, suitcases, and bags	505	11, 441	7, 269	13, 520	32, 837	63, 023	30, 186
1925							
Belting, leather	168	2, 644	6, 889	3, 505	18, 868	31, 811	12, 943
Boot and shoe cut stock, not made in boot and shoe factories	244	7, 197	7, 859	7, 978	65, 646	84, 220	18, 574
Boot and shoe findings, not made in boot and shoe factories	326	8, 605	15, 419	9, 695	29, 248	52, 064	22, 816
Boots and shoes, other than rubber	1, 460	206, 992	139, 569	225, 788	481, 632	925, 383	443, 751
Gloves and mittens, leather	247	8. 378	3, 852	7, 814	20, 021	37, 164	17, 143
Pocketbooks, purses, and cardcases	190	6, 826	1, 356	9, 022	22, 442	43, 105	20, 663
Saddlery and harness	258	4, 570	5, 021	5, 060	18, 776	30, 084	11, 308
Trunks, suitcases, and bags	475	10, 348	7, 893	13, 226	31, 382	61, 224	29, 842
Leather goods, n. e. s	364	6, 685	3, 223	7, 396	20, 474	40, 512	20, 038
Blackings, stains, and dressings	171	1, 869	2, 659	2, 165	9, 733	25, 055	15, 322

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

BOOT AND SHOE INDUSTRY

Census Statistics of the Industry.

The boot and shoe industry, according to the biennial census, produced in 1925 in 1,460 establishments footwear and other products valued at over $925,000,000. The number of pairs manufactured amounted to 323,553,000. The combined output of four States, Massachusetts, New York, Missouri, and Illinois, constituted 67 per cent of the total. The leading cities in the industry are New York, St. Louis, Brockton, Milwaukee, Boston, Chicago, Lynn, Manchester, Rochester, Auburn, Cincinnati, Philadelphia, Columbus, and Marlboro, each of which produced shoes valued at over $10,000,000 in 1925.

Table 14.—Boot and Shoe Industry

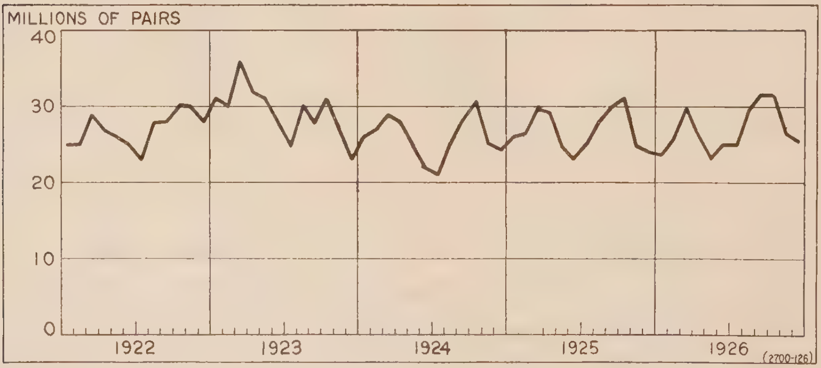
Year	Establishments	Wage-earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
1899	1, 599	141, 830	49, 444	$58, 440, 883	$168, 632, 654	$258, 969, 580	$90, 336, 926
1909	1, 343	185, 116	85, 896	92, 359, 152	277, 467, 743	442, 630, 726	165, 162, 983
1914	1, 355	191, 555	95, 966	105, 695, 404	310, 356, 586	501, 760, 458	191, 403, 872
1919	1, 449	211, 049	115, 886	210, 734, 610	715, 269, 315	1, 155, 041, 436	439, 772, 121
1921	1, 505	183, 502	(1)	204, 954, 095	478, 432, 445	867, 475, 896	389, 043, 451
1923	1, 606	225, 216	128, 550	250, 345, 922	527, 456, 868	1, 000, 078, 022	472, 621, 154
1925	1, 460	206, 992	139, 569	225, 787, 981	481, 631, 964	925, 383, 422	443, 751, 458

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

Massachusetts, with 537 establishments, produced footwear valued at about $241,000,000; New York with 334 establishments had an output valued at $191,000,000; and Missouri with 68 establishments had an output valued at $124,000,000; Illinois, Wisconsin, New Hampshire, and Ohio ranked next in importance among the States, each having an output valued at more than $50,000,000.

Chart IV.—PRODUCTION OF FOOTWEAR (OTHER THAN LEATHER)



Production.

The United States, in 1926, manufactured 324,514,000 pairs of footwear (other than rubber) an increase of one-third of 1 per cent over 1925 and of 11 per cent over 1914 production. The increase over 1925 production was shared by men's, boys' and youths', women's, and miscellaneous footwear. The principal increase was in the number of pairs of women's shoes manufactured, which was 110,447,000 in 1926, as compared with 104,782,000 pairs in 1925. The most noticeable decrease was in the quantity of canvas, satin, and other fabric shoes manufactured; the output in 1926 was 4,790,000 pairs, and in 1925, 8,564,000 pairs. Of the total production, women's shoes constituted 34 per cent and men's shoes, 26.7 per cent, as compared respectively with 32.4 and 26.8 per cent in 1925.

The peak months of 1926, September and October, with respective outputs of 31,673,000 and 31,662,000 pairs, were followed by a decline, customary at this season, to 25,415,000 pairs in December.

Table 15.—Production, Exports, and Imports of Footwear (Other Than Rubber)

[Thousands of pairs]

Item	1914	1919	1921	1922	1923	1924	1925	1926
Production, total	292, 666	331, 225	286, 771	323, 876	351, 114	313, 230	323, 553	324, 514
Men's	98, 031	95, 017	69, 458	89, 984	100, 283	84, 663	86, 546	86, 644
Boys' and youths'	22, 896	26, 504	18, 462	21, 632	22, 239	20, 274	21, 021	21, 111
Women's	80, 916	104, 813	101, 474	105, 368	109, 676	104, 135	104, 782	110, 447
Misses' and children's	48, 322	48, 538	35, 065	39, 443	40, 136	35, 694	38, 691	38, 577
Infants'	15, 477	16, 669	17, 379	23, 939	27, 015	23, 823	24, 587	24, 041
All other	27, 024	39, 684	44, 933	43, 510	51, 765	44, 641	47, 926	43, 694
Athletic and sporting (leather)	(1)	586	5, 547	8, 448	6, 434	5, 853	5, 914	5, 318
Canvas and other textile fabrics	(1)	11, 056	8, 602	6, 739	8, 347	6, 260	8, 564	4, 790
Not specified, including slippers	(1)	28, 042	30, 784	28, 323	36, 984	32, 528	33, 448	33, 586
Exports, total (calendar year)	11, 455	23, 165	10, 376	7, 080	9, 910	8, 504	8, 888	8, 003
Foreign countries	10, 181	21, 683	9, 019	5, 643	7, 697	6, 607	6, 875	6, 047
Noncontiguous territories	1, 274	1, 482	1, 357	1, 437	2, 213	1, 897	2, 013	1, 956
Imports	[2] 421	[2] 62	[2] 146	643	1, 938	2, 652	1, 985	2, 355

[1] Not separately shown.

[2] Boots and shoes only, slipper statistics not available; data for 1914 estimated.

Sources: Bureau of the Census and Bureau of Foreign and Domestic Commerce.

Table 16.—Production of Footwear (Other Than Rubber), by Months

[Thousands of pairs]

Month	1922	1923	1924	1925	1926	Month	1922	1923	1924	1925	1926
January	25, 120	30, 744	26, 497	26, 077	23, 874	July	22, 686	25, 256	21, 389	24, 758	25, 052
February	24, 551	30, 301	26, 832	26, 455	25, 698	August	27, 676	30, 028	25, 473	28, 486	29, 646
March	29, 350	35, 836	28, 864	29, 886	29, 928	September	28, 288	27, 555	27, 716	29, 769	31, 674
April	26, 852	31, 868	28, 004	29, 476	26, 637	October	30, 366	30, 705	30, 826	31, 056	31, 662
May	26, 227	30, 926	25, 240	25, 107	23, 129	November	30, 076	26, 946	25, 322	24, 630	26, 758
June	24, 831	28, 273	22, 464	23, 449	25, 041	December	27, 853	22, 676	24, 602	24, 404	25, 415

Source: Bureau of the Census.

Price Movement.

Table 17 shows wholesale prices of certain popular styles of men's, women's, and youths' shoes. The prices in 1920, the peak year, were more than twice as high as in 1913. They fell sharply in the next two years and have changed but little since. The average price of men's shoes ranged from 28 to 37 per cent lower in 1926 than in 1920, while women's shoes were from 20 to 26 per cent cheaper. The price of men's black calf, Goodyear welt bal shoes, was quoted about 4 per cent lower in 1926 than in 1925. Other price changes during the past year were very small.

Table 17.—Average Wholesale Prices, in Dollars per Pair, of Leather Boots and Shoes

Year	Men's				Women's		Youths' gun-metal blucher
	Black calf, Goodyear welt, blucher	Black calf, Goodyear welt, bal	Black vici kid, Goodyear welt	Tan side leather, Goodyear welt, dress	Colored calf, Goodyear welt, lace oxford	Patent-leather, McKay sewed, pump	
1905	$2.57	(1)	$2.20	(1)	(1)	(1)	(1)
1913	3.11	$3.17	2.87	$2.24	(1)	$1.38	$1.08
1919	7.60	7.10	7.25	5.08	(1)	4.08	2.12
1920	8.95	7.50	8.34	5.34	(1)	4.87	2.34
1921	7.00	4.80	6.40	3.56	$5.21	4.01	1.81
1922	6.51	4.61	5.83	3.31	4.00	3.60	1.47
1923	6.43	4.85	6.00	3.35	4.13	3.60	1.47
1924	6.25	4.88	6.00	3.32	4.12	3.58	1.47
1925	6.39	5.13	6.00	3.39	4.15	3.60	1.47
1926	6.40	4.92	6.00	3.37	4.15	3.60	[2] 1.47

[1] Data not available. [2] Figures represent the first three quarters of 1926.

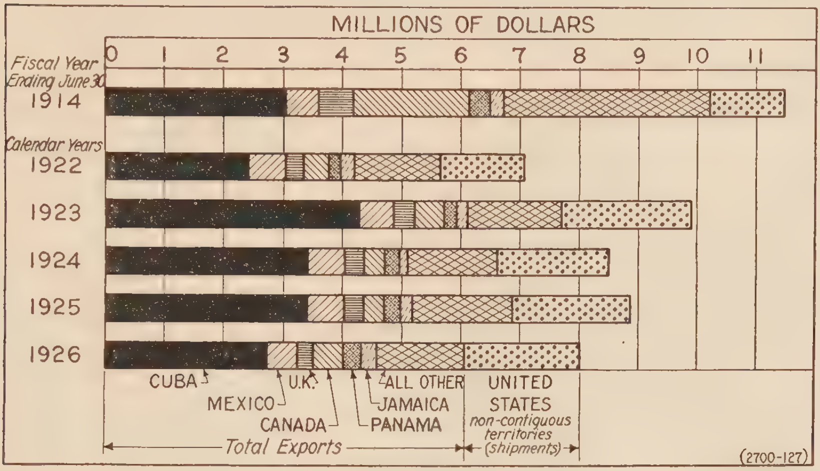
Source: Bureau of Labor Statistics, Department of Labor.

Foreign Trade.

During 1926 the domestic output of 324,514,000 pairs of footwear (other than rubber) was supplemented by the importation of 2,355,000 pairs of free and dutiable footwear. Exports amounted to 8,003,000 pairs, of which quantity 6,047,000 pairs were shipped to foreign countries (including the Philippine Islands) and 1,995,000 pairs to Alaska, Hawaii, and Porto Rico. The average consumption for the continental United States was consequently about 2.7 pairs per capita for the year 1926. Such an average is, however, somewhat misleading because it covers so wide a range not only of ages and occupations of the individuals but also of types of footwear manufactured and imported.

Of the 1926 exports of leather manufactured goods, the value of leather footwear represented 71 per cent or $13,279,000. Compared with 1925 exports to foreign countries those of 1926 show a decrease of 12 per cent in quantity and 15 per cent in value. Shoes for men and boys constituted 43 per cent of the total number of pairs of footwear exported; shoes for women, 33 per cent; and those for children, 18 per cent. The proportion of men's shoes was lower than in 1925, while those of women's and children's shoes increased. Table 19 shows the value of exports of each of the major classes of footwear by years since 1921. It is noteworthy that exports of men's shoes have shown the greatest fluctuation during this period.

Chart V.—**LEATHER FOOTWEAR: TOTAL EXPORTS, EXPORTS TO IMPORTANT FOREIGN MARKETS, AND SHIPMENTS TO NONCONTIGUOUS TERRITORIES**



Countries of Destination of Exports.

The dominating foreign markets in 1926 were Cuba, which took 45.4 per cent of the total number of pairs of boots and shoes exported to foreign countries; Canada, 8.4 per cent; Mexico, 8 per cent; Panama, 4.9 per cent; Jamaica, 4.4 per cent; and the United Kingdom, 4.4 per cent. The proportions based on value differ somewhat from those based on the number of pairs. Altogether, shoes were exported to 87 foreign countries. Cuba was much the most important purchaser of each of the three major classes of shoes. Mexico ranks second in men's and boys' shoes; and Canada and the United Kingdom rank second and third, respectively, in women's shoes.

Table 18 shows the changes in quantity and value of United States exports of footwear by country of destination for 1926 as compared with the two previous years and 1914, and this is shown graphically for a few of the principal countries in Chart V. Although exports of shoes have declined substantially since 1914 our trade with the North American markets, except Canada, has been well maintained and there was considerable improvement in the exports to Canada in 1926.

Table 18.—Exports of Leather Footwear to Principal Foreign Countries and Shipments to Noncontiguous Territories

Country	Number (thousands of pairs)				Value (thousands of dollars)				Value in 1926 (thousands of dollars)			
	1914[1]	1924	1925	1926	1914[1]	1924	1925	1926	Men's and boys'	Women's	Children's	Miscellaneous, including slippers
Foreign countries	**10,205**	**6,607**	**6,875**	**6,047**	**18,230**	**15,412**	**15,665**	**13,279**	**7,295**	**4,379**	**1,179**	**426**
British South Africa	85	40	24	25	198	142	63	55	23	12	------	20
Canada	1,930	348	341	511	3,391	789	867	1,253	336	787	14	116
Cuba	3,037	3,429	3,399	2,747	3,353	7,436	7,151	5,148	3,371	914	827	36
Dominican Republic	174	326	403	184	209	590	714	379	150	177	41	11
Honduras	117	110	122	88	239	255	291	199	89	94	12	4
Jamaica	230	131	209	263	257	212	329	413	190	198	19	6
Mexico	569	604	629	483	1,146	1,785	1,896	1,400	883	396	38	83
Newfoundland and Labrador	88	203	144	119	133	291	231	188	73	86	22	7
Panama	369	250	271	298	716	524	629	690	463	165	49	13
Philippine Islands	400	112	173	102	776	262	416	265	203	37	13	12
South America	708	110	200	257	1,940	281	527	683	377	204	63	39
Colombia	23	73	154	214	42	160	389	561	289	193	61	18
United Kingdom	583	336	329	265	1,324	1,173	925	813	214	586	8	5
Other countries	1,915	608	631	705	4,548	1,672	1,626	1,793	923	723	73	74
Noncontiguous territories[2]	**1,279**	**1,897**	**2,013**	**1,956**	**1,835**	**3,653**	**3,995**	**3,783**	**1,965**	**1,818**	(3)	(3)
Alaska	98	48	44	47	276	176	151	168	123	45	(3)	(3)
Hawaii	192	253	263	251	367	784	823	732	471	261	(3)	(3)
Porto Rico	989	1,596	1,706	1,658	1,192	2,693	3,021	2,883	1,371	1,512	(3)	(3)

[1] Fiscal year ended June 30.
[2] Shipments to noncontiguous territories in 1925 are classified as men's and boys', women's and children's.
[3] Not segregated.

Source: Bureau of Foreign and Domestic Commerce.

The quantity of men's and boys' shoes exported to Cuba was approximately the same in 1926 and 1925 and a slight decline was noted in the Mexican market. Canada, however, more than doubled its demand, taking 150,000 pairs in 1926. Colombia also increased its demand for men's and boys' leather shoes by about 18 per cent.

Of the important markets for women's shoes, Canada, Jamaica, and Panama showed pronounced increases in demand, while exports to Cuba, Mexico, and the United Kingdom decreased.

The noncontiguous territories of the United States (not including the Philippine Islands) were supplied in 1926 with 789,000 pairs of men's and boys' leather boots and shoes, valued at $1,965,000 and 1,167,000 pairs of women's and children's shoes, valued at $1,818,000. Porto Rico received about 85 per cent of these shipments.

Table 19.—Value of Exports, Shipments to Noncontiguous Territories, and Imports of Leather Manufactures and Related Articles

[Thousands of dollars]

Item	1921	1922	1923	1924	1925	1926	1926 per cent change from 1925
EXPORTS TO FOREIGN COUNTRIES							
Total leather manufactures	**28,764**	**16,688**	**22,244**	**19,835**	**20,561**	**18,528**	**−9.9**
Footwear, total	24,776	12,671	17,966	15,413	15,665	13,279	−15.2
Boots and shoes—							
Men's and boys'	16,319	5,923	10,030	8,363	8,566	7,295	−14.9
Women's	5,016	5,006	5,303	4,930	5,060	4,379	−13.4
Children's	3,343	1,444	2,184	1,778	1,692	1,179	−30.3
Slippers	98	152	295	157	224	260	+15.6
Athletic and miscellaneous footwear	(1)	146	154	185	123	166	+35.0
Gloves	35	71	132	229	283	141	−50.2
Harness and saddlery	697	278	691	738	537	573	+6.8
Bags and suit cases	(2)	198	260	242	293	314	+7.5
Pocketbooks and purses	(2)	360	260	185	239	318	+33.0
Belting	1,423	1,639	1,690	1,668	1,993	1,996	+0.1
Leather goods, not specified	1,833	1,471	1,245	1,360	1,551	1,906	+22.9
Shoe findings	1,614	1,704	1,729	1,552	1,578	1,447	−8.3
Blackings, polishes, and stains	1,334	1,757	1,660	1,786	1,826	1,624	−11.0
Trunks	(1)	(1)	346	380	473	497	+5.0
SHIPMENTS TO NONCONTIGUOUS TERRITORIES							
Total leather manufactures	**3,121**	**3,210**	**5,106**	**4,168**	**4,473**	**4,229**	**−5.4**
Boots and shoes	2,769	2,834	4,594	3,653	3,995	3,783	−5.3
Men's and boys'	(1)	(1)	(1)	(1)	2,400	1,965	−18.0
Women's and children's	(1)	(1)	(1)	(1)	1,595	1,818	+14.0
Harness and saddlery	56	54	104	93	69	45	−34.8
Leather goods, not specified	296	322	408	422	409	401	−2.0
Shoe findings	(1)	(1)	(1)	(1)	74	91	+23.0
Blackings, polishes, and stains	(1)	(1)	83	93	97	86	−11.3
IMPORTS							
Total leather manufactures	**15,365**	**11,145**	**11,313**	**12,178**	**13,854**	**17,207**	**+24.2**
Boots, shoes, and slippers [3]	573	939	1,884	2,844	2,912	4,033	+38.5
Shoes (free)	(1)	753	1,246	1,995	2,430	3,381	+39.1
Slippers (free)	(1)	98	280	302	131	321	+145.0
Dutiable footwear		88	358	547	351	331	−5.7
Gloves	13,090	7,948	6,882	6,544	7,510	8,918	+18.7
Leather goods, not specified	1,702	2,258	2,547	2,790	3,432	4,256	+24.0

[1] Not separately shown.
[2] Included in "Leather goods, not specified."
[3] Prior to tariff act of Sept. 21, 1922, imports of slippers not separately shown.

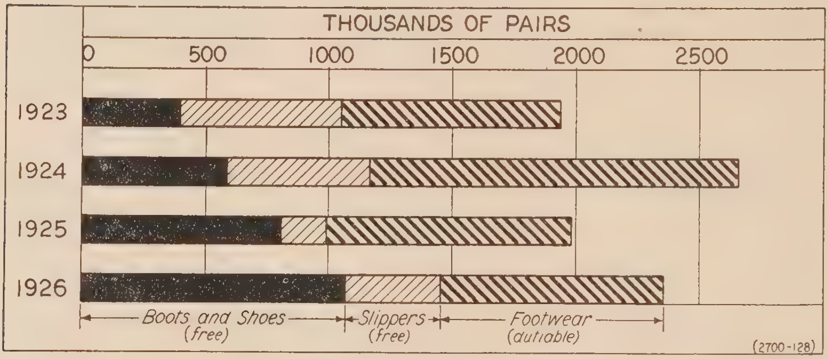
Source: Bureau of Foreign and Domestic Commerce.

Imports of Footwear (Other than Rubber).

The United States during 1926 imported 1,070,000 pairs of leather boots and shoes (free) valued at $3,381,000; 377,000 pairs of leather slippers (free) valued at $321,000; and 908,000 pairs of dutiable footwear valued at $331,000. The total of 2,355,000 pairs of free and dutiable footwear was 19 per cent higher than in 1925, but was smaller than in 1924. Of the imports of leather boots and shoes, 21.9 per cent were for men and boys; 45.3 for women; and 32.8 per cent for children. The proportion of men's shoes was much smaller than in 1925, while that of women's shoes showed a substantial increase. The importation of 234,000 pairs of shoes for men and boys was a decrease of 24 per cent as compared with the imports of 1925. The principal countries of origin of the imports were Switzerland, Germany, United Kingdom, Czechoslovakia, France, Austria, and Canada.

Imports of women's shoes have increased from 115,000 pairs in 1923 to 485,000 pairs in 1926. Switzerland, the leading source of supply, furnished 36 per cent of these 1926 importations; Czechoslovakia, 27 per cent; and France, 22 per cent. The United Kingdom furnished 68 per cent of the imports of men's shoes, while Germany supplied more than one-half of the imports of children's shoes. Leather slippers were furnished the United States in large quantities by Czechoslovakia, Turkey in Europe, Germany, and France. Of the duitable footwear, Japan, including Chosen, and Germany supplied the major portion.

Chart VI.—IMPORTS OF LEATHER FOOTWEAR



SHOEMAKERS' SUPPLIES

Shoemakers' supplies are manufactured in many of the shoe factories, but definite data as to quantity and value of such production are not available. However, in addition to this output used largely within the factory there were in 1925, according to the United States Census of Manufacturers, 326 establishments engaged primarily in the manufacture for sale of such shoe findings as shoe pegs, bows, clasps, stays, metal tips and heel plates, toe caps, buckles, heel caps, staples, counters, shanks, wooden heels, shoe trimmings, boot and shoe laces, and other findings for the boot and shoe trade valued at $52,000,000. In addition, 244 establishments produced boot and shoe cut stock, valued at $84,000,000, and 62 establishments produced lasts and related products, such as shoe-trees, shoe stretchers, and display forms for boots and shoes, representing a value of $9,000,000. The total value of shoemakers' supplies produced in separate establishments was, therefore, over $145,000,000 in 1925.

Massachusetts led in value of production for all of these three industries, while Missouri ranked next in importance for both cut stock and findings.

During 1926 the United States exported to foreign countries shoe findings valued at $1,447,000. Canada, the leading market, received goods valued at $550,000; and the United Kingdom, Argentina, Australia, and Cuba were other important purchasers. The shipments to the noncontiguous territories were valued at $91,000, an increase of 23 per cent over the value of the 1925 shipments.

LEATHER BELTING INDUSTRY

According to data collected at the latest industrial census (1925), 168 establishments in the United States were engaged primarily in the manufacture of leather belting for use in the transmission of power, with products valued at $31,811,000, a decrease of 16 per cent as compared with 1923. (Table 13.)

In 1926 the United States exported to 71 foreign countries 1,348,000 pounds of leather belting valued at $1,996,000, a very slight increase over the 1925 trade. British India and China, the principal markets, each took over 200,000 pounds, showing increases of 30 per cent for British India and of 15 per cent for China. Exports to Canada and Cuba, on the other hand, were much smaller than in 1925.

LEATHER GLOVES

Production of leather gloves reached a value of $37,000,000 in 1925. Over half of this industry is located in the State of New York. Gloversville, N. Y., alone produced leather gloves valued at $11,500,000, while the outputs of Johnstown, N. Y., and of Milwaukee each exceeded $4,000,000.

The domestic trade, in addition to gloves of United States manufacture, imported in 1926, 9,800,000 pairs of leather gloves of foreign manufacture, valued at $8,900,000. Only about 105,000 pairs were for men and boys. Imports of women's gloves from France amounted to $4,500,000, and imports from Germany reached a value of $3,250,000. Other important sources of supply were Belgium, Italy, Czechoslovakia, and the United Kingdom. The imports of women's gloves exceeded those of 1925 by approximately 1,500,000 pairs. Exports of gloves are very small.

HARNESS AND SADDLERY

Production of the harness and saddlery industry in 1925 was valued at $30,000,000, a decrease of 29 per cent, as compared with 1923. This industry is widely distributed geographically, differing in this respect from most other types of leather manufacturing. (Table 13.)

In 1926 the United States exported to 60 foreign countries harness and saddlery valued at $573,000, an increase of 7 per cent over 1925. Practically all of these exports were marketed in other North American countries, Mexico receiving about 60 per cent of the total and

Cuba 20 per cent. In addition to the exports to foreign countries goods of this character valued at $45,000 were shipped to noncontiguous territories.

LUGGAGE INDUSTRY

According to the 1925 census, manufactures of trunks, bags, and suitcases were valued at $61,000,000, a decrease of 3 per cent as compared with 1923. More than one-quarter of this industry is concentrated in New York State and most of the remainder is located in Pennsylvania, Illinois, Virginia, Wisconsin, New Jersey, and Missouri.

During 1926 the United States exported over 27,000 trunks, valued at $497,000, and 127,600 leather bags and suitcases, valued at $314,000. Cuba and the United Kingdom were the principal markets for trunks, while Canada took over one-half of the bags in 1926.

LEATHER POCKETBOOKS, PURSES, AND CARDCASES

The census of 1925 shows that the production of pocketbooks, purses, and cardcases was valued at $43,000,000, an increase of 32 per cent over 1923. Over two-thirds of this industry is concentrated in New York City. During the same year, 1925, goods valued at $239,286 were exported and in 1926 this trade was increased to $318,255. Canada, Cuba, Mexico, Australia, and Colombia were the principal countries of destination.

MISCELLANEOUS LEATHER GOODS

Exports of miscellaneous leather goods, covering a range from leather garments, puttees, hat sweats, belts, and razor strops, to dog harness and leather novelties were valued at $1,900,000 in 1926, an increase of 23 per cent over 1925. Articles of this character shipped to Canada represented 34 per cent of the total value; those to Mexico, 11 per cent; those to Italy, 10 per cent, and those to the United Kingdom, 8 per cent.

BLACKINGS, POLISHES, STAINS, AND DRESSINGS

In 1925 there were 169 establishments in the United States engaged primarily in the manufacture of blackings, stains, and dressings, with an output valued at about $25,000,000, a decrease of 3.5 per cent as compared with 1923, but an increase of 35 per cent as compared with 1921. Goods valued at $1,624,000 were exported to foreign countries, while shipments to the noncontiguous territories reached a value of $91,000. Of the 3,393,000 pounds of shoe polish valued at $996,000, exported to foreign countries in 1926, Cuba, the leading market, received 608,000 pounds; Canada, 310,000 pounds; and Egypt, 227,000 pounds.

Other blackings and polishes found favorable markets in United Kingdom, Belgium, Japan, and Mexico.

PAPER AND PRINTING

SUMMARY.—During 1925, the most recent year for which census statistics are available, the total production of paper was 9,182,000 short tons, or nearly 12 per cent more than in 1923; all classes shared in the increase, except hanging paper, which showed a decrease of 5 per cent. The output of newsprint, which in 1925 was 1,530,000 tons, increased in 1926 to 1,678,000 tons, according to the Newsprint Service Bureau. Average prices in 1926 showed a slight decline from the level established in 1925, newsprint alone having dropped 7 per cent. The total value of imports of paper base stocks, paper, and printed matter in 1926 was over $275,000,000, and was greater by nearly 10 per cent than similar imports in 1925, the largest reported to that time. Imports of newsprint in 1926 increased by nearly 28 per cent in quantity over 1925, while imports of pulp during the same period were nearly 5 per cent greater. Imports of pulpwood decreased by over 7 per cent. Exports of paper and paper products in 1926 increased almost 12 per cent in value as compared with 1925, while exports of books and other printed matter showed a gain of over 4 per cent.

GENERAL POSITION AND CHARACTER

The manufacture of pulp and paper is one of our major industries and includes as principal groups, according to the census of 1925, board, book, wrapping, newsprint, writing, tissue, building felt, and absorbent papers, in order of importance. The output of paperboard of all kinds has increased in quantity about nine times since 1900, and has shown a growth of 5 per cent in value since the biennial census of 1923. This branch of the industry is now the most important from the point of view of tonnage. The output of book paper in 1925 increased 10 per cent over 1923 and that of wrapping paper about 9.5 per cent, while newsprint increased less than 3 per cent in the same period.

Based on the preliminary data of the last census of manufactures (1925), the combined paper and printing industries ranked seventh among the 16 major groups of manufacturing industries, registering no change in this respect since 1923. The total value added by manufacture for this group in 1925 was $2,529,450,000, or slightly over 9 per cent of the total for all manufacturing industries combined. Table 1 shows the growth of both the paper and printing industries by census years since 1899, together with the status of the subsidiary branches in 1925. It should be noted that the several important industries classified under printing and publishing are shown in detail in Table 10, and also that engravers' materials and wall paper, shown as separate items in this table, were added to the industry in 1925.

Table 1.—Paper and Printing Industries

Note.—The cost of materials and value of product in each group involves some duplication owing to the use of the product of one establishment as material for another. No combined totals, for the group as a whole, are given on account of the still greater duplication. Value added by manufacture is a net figure.

Industry and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				Thousands of dollars			
The group as a whole:							
1899	26,638	298,820	897,348	140,799	----------	----------	393,480
1914	37,209	453,006	2,039,073	296,566	----------	----------	875,548
1919	36,424	510,049	2,346,682	564,722	----------	----------	1,706,631
1921	25,377	467,256	(1)	637,432	----------	----------	1,818,193
1923	25,799	527,019	2,743,529	743,050	----------	----------	2,227,870
1925	26,553	536,766	3,060,794	805,516	----------	----------	2,529,450
Paper and woodpulp:							
1899	763	49,646	761,943	20,746	70,530	127,326	56,796
1914	718	88,457	1,611,954	53,246	213,181	332,147	118,966
1919	729	113,759	1,849,699	135,691	467,483	788,060	320,577
1921	738	105,294	(1)	127,029	445,992	667,436	221,444
1923	746	120,677	2,178,623	151,477	573,727	907,347	333,620
1925	763	123,842	2,427,010	160,146	605,860	971,882	366,022
Manufactures of paper not made in paper mills:							
1899	1,143	41,283	19,984	13,124	31,281	60,755	29,474
1914	1,711	74,630	78,740	33,473	93,741	174,681	80,940
1919	1,919	90,497	109,692	73,526	240,589	440,866	200,277
1921	1,837	76,290	(1)	71,537	208,080	385,747	177,667
1923	1,907	93,866	124,664	93,544	289,220	524,126	234,906
1925	1,931	93,834	136,982	98,683	300,800	558,529	257,729
Printing and publishing and allied industries:							
1899	23,814	195,260	107,647	99,816	103,654	395,187	291,533
1914	33,471	272,092	327,103	195,510	257,848	901,535	643,687
1919	32,476	287,278	361,124	331,519	571,510	1,699,789	1,128,279
1921	21,850	268,081	(1)	407,687	647,296	1,999,915	1,352,619
1923	22,122	291,029	405,194	459,856	647,975	2,222,537	1,574,562
1925	22,725	296,324	458,842	502,114	673,985	2,482,065	1,808,080
Other industries related to printing and publishing:							
1899	918	12,631	7,774	7,113	9,243	24,920	15,677
1914	1,309	17,827	21,276	14,336	16,496	48,452	31,956
1919	1,300	18,515	26,167	23,986	28,619	86,117	57,498
1921	952	17,591	(1)	31,179	31,003	97,466	66,463
1923	1,024	21,447	35,048	38,173	33,496	118,278	84,782
1925	1,134	22,766	37,960	44,574	33,590	131,209	97,619
MANUFACTURES OF PAPER, 1925							
Boxes, paper	1,229	57,148	84,265	57,172	151,712	281,944	130,232
Bags, paper, exclusive of those made in paper mills	66	5,585	6,414	5,524	29,957	45,978	16,021
Envelopes	135	9,052	10,288	9,987	27,423	51,189	23,766
Labels and tags	113	5,356	4,808	6,730	13,096	28,045	14,950
Paper patterns	16	1,243	813	1,595	2,001	13,665	11,664
Card cutting and designing	49	1,086	1,355	1,084	2,436	6,201	3,765
Cardboard, not made in paper mills	13	978	1,795	1,188	3,475	7,288	3,814
Paper goods, not elsewhere classified	310	13,386	35,324	15,403	70,700	124,217	53,518

[1] Not called for in schedule for 1921.

Source: Bureau of the Census.

PULP, PAPER, AND PAPER MANUFACTURES

The United States ranks first by a large margin among the paper-producing countries of the world and is followed by Germany, Canada, and Great Britain. Complete data for 1926 are not available for many foreign countries, but it is estimated from various sources that the total paper production of the world for that year was approximately

19,000,000 short tons. Of this the United States alone produced and consumed well over one-half.

The industry is concentrated largely in the northeastern and Lake States, principally because of the availability there of primary raw materials and water and hydroelectric power.

One of the more recent developments of note in the industry has been the development of the kraft pulp and paper industry in the South Atlantic and Gulf States where these products are being manufactured from the woods classed broadly as southern pine.

PRODUCTION

According to the census of 1925 the pulp and paper industry employed an average of about 124,000 wage earners and the value of its products was $972,000,000. There were 1,885 paper-making machines in the United States in 1925 and there were additional installations of 28 during 1926. Total machine capacity in 1925 was 11,252,000 tons, increasing in 1926 to 12,000,000 tons, while the actual production was 9,182,000 tons and 10,000,000 tons, respectively. These figures indicate that the industry has been operating at about 82 per cent of capacity over the past two years.

Pulpwood Consumption and Wood Pulp Production.

The paper consumed in and exported from the United States, the great bulk of which is manufactured from wood, is estimated by the United States Forest Service to have required the consumption of 10,965,000 cords of pulpwood in 1925 and of 12,341,000 cords in 1926. Of the quantity consumed during the latter year, 5,479,000 cords were from domestic sources and 4,973,000 cords were imported from Canada in the form of pulpwood, pulp, and paper products. The relative proportion of our paper supply derived from domestic pulpwood continues to decline, as may be seen from Table. 2.

Table 2.—Source of Pulpwood Used for Paper Consumed in and Exported From the United States

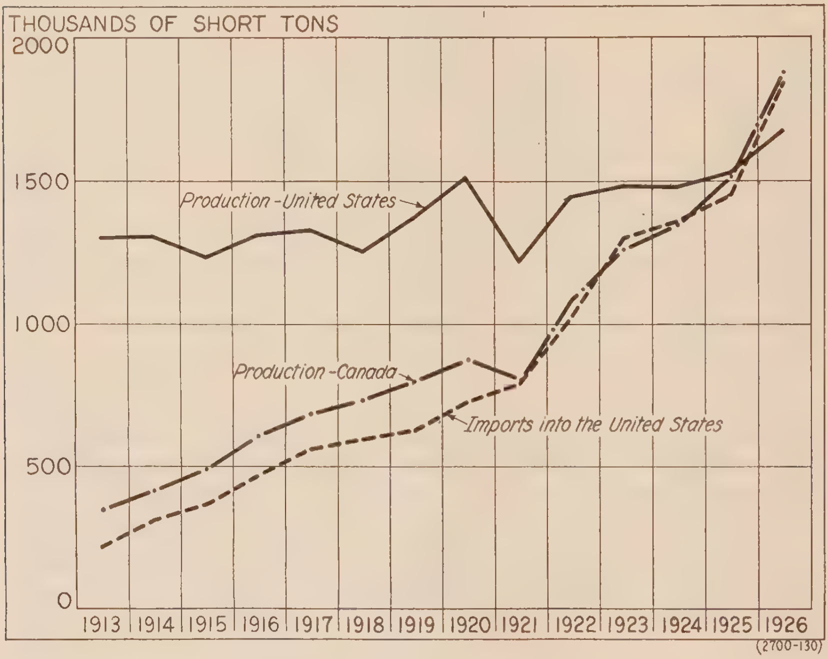
[Wood pulp and paper, imported or exported, converted into terms of pulpwood. In thousands of cords]

Item	1899	1904	1909	1914	1919	1921	1923	1925	1926
PULPWOOD CONSUMED									
Total	**2,075**	**3,397**	**4,572**	**6,071**	**7,426**	**6,888**	**10,113**	**10,965**	**12,341**
For:									
Domestic requirements	1,950	3,259	4,420	5,886	6,806	6,649	9,924	10,753	12,129
Export	125	138	152	185	620	239	189	212	212
Source:									
Domestic	1,617	2,476	3,210	3,642	4,446	3,740	4,637	5,006	5,479
Imported from Canada	420	763	1,025	1,630	2,741	2,378	3,859	4,235	4,973
Other imports	38	158	337	799	239	770	1,617	1,724	1,889
Per cent from each source:									
Domestic	78.0	72.9	70.2	60.0	59.9	54.3	45.8	45.7	44.4
Imports from Canada	20.2	22.5	22.4	26.8	36.9	34.5	38.2	38.6	40.3
Other imports	1.8	4.6	7.4	13.2	3.2	11.2	16.0	15.7	15.3

Source: Forest Service, Department of Agriculture.

Total wood pulp production in the United States in 1925, according to the 1925 biennial census, amounted to 3,953,000 tons as compared with 3,789,000 tons in 1923, an increase of nearly 4.5 per cent during the two-year period. The percentage of increase in production of mechanically ground wood and of chemical cellulose has been approximately the same since 1923.

Chart I.—NEWSPRINT PAPER: PRODUCTION IN THE UNITED STATES AND CANADA, AND IMPORTS INTO THE UNITED STATES



Production of Paper.

The total production of paper in 1925 was 9,182,000 tons, the largest output ever reported by the industry. This was nearly 12 per cent greater than the 1923 production and was about 70 per cent above the production of the year 1921 when the industry was severely depressed. In actual tonnage output, board ranks first, followed by newsprint, book, and wrapping papers. In value, the relative rank of these grades is as follows: Boards, book, wrapping, and newsprint. In the production of newsprint, the United States yielded first place to Canada during the second half of 1925, the output of the Dominion having consistently exceeded that of this country since that time.

Table 3.—Production of Paper and Wood Pulp—Census Returns

[Quantities in thousands of tons of 2,000 pounds; values in thousands of dollars]

Product	Quantity					Value				
	1914	1919	1921	1923	1925	1914	1919	1921	1923	1925
Total paper	5, 270	6, 099	5, 431	8, 029	9, 182	291, 588	673, 049	585, 735	812, 509	862, 589
Standard newsprint, in rolls and sheets	1, 313	1, 324	1, 237	1, 521	1, 563	52, 943	98, 559	114, 315	110, 865	106, 083
Hanging	97	69	57	111	105	4, 489	6, 043	5, 949	10, 285	9, 506
Poster, novel, tablet, lining, etc.	[1] 8	80	35	55	84	[1] 491	7, 273	4, 174	4, 960	7, 096
Book [2]	904	951	792	1, 208	1, 328	70, 102	142, 280	122, 930	169, 286	175, 525
Cover	22	22	16	21	24	2, 809	5, 643	4, 112	4, 973	5, 806
Fine	248	325	231	377	474	34, 055	87, 741	61, 314	89, 098	105, 474
Wrapping (or coarse)	[3] 911	[3] 858	827	1, 184	1, 298	[3] 51, 308	[3] 108, 529	103, 259	141, 532	143, 901
Boards	1, 292	1, 867	1, 740	2, 793	3, 281	44, 870	124, 091	104, 346	182, 867	192, 628
Tissue	115	191	186	251	281	11, 536	40, 696	33, 647	44, 144	45, 735
Absorbent	14	13	12	16	51	1, 458	3, 209	2, 667	3, 777	10, 000
Building	244	195	217	345	[4] 555	9, 476	17, 737	12, 842	23, 529	[4] 44, 031
All other [2]	[3] 103	[3] 201	81	148	138	[3] 8, 053	[3] 31, 247	16, 179	27, 195	16, 803
Wood pulp:										
Total [5]	2, 893	3, 518	2, 876	3, 789	3, 953					
For sale or transfer	912	1, 100	868	1, 063	913	31, 678	80, 095	63, 374	65, 497	55, 200

[1] Reported as poster only.

[2] Excludes plate, lithograph map, woodcut, etc., which was included in "All other paper" for 1923 to avoid disclosing operations of individual establishments. Corresponding data for 1914, 1919, 1921, and 1925 also included in "All other paper" to preserve comparability.

[3] Figures are not strictly comparable with later years, owing to the exclusion in these years of bag paper which was not reported separately, but, included in "All other paper" and which since 1919 has been reported under "Wrapping (or coarse) paper."

[4] Not strictly comparable with earlier years owing to a change in classification.

[5] Figures include wood pulp consumed in mills in which manufactured.

Source: Bureau of the Census.

Table 4.—Estimated Production of Specified Kinds of Paper

[In thousands of short tons]

Quarter or month	Paper							Wood pulp	
	Total	Newsprint	Box board	Book	Wrapping	Fine	All other	Mechanical	Chemical
1924									
January-March	1, 857	369	562	302	271	97	257	478	618
April-June	1, 825	385	508	314	240	96	282	551	610
July-September	1, 771	348	537	293	242	84	267	329	537
October-December	1, 892	369	538	322	263	94	307	391	625
1925									
January-March	1, 949	372	556	326	274	113	308	428	633
April-June	1, 929	391	540	323	265	112	298	528	608
July-September	1, 941	364	592	311	270	107	296	320	588
October-December	2, 005	403	588	324	279	117	295	433	641
1926									
January-March	2, 068	416	605	342	271	121	314	439	662
April-June	2, 082	429	630	338	260	117	309	542	671
July-September	2, 064	416	652	320	267	110	299	389	657
October-December	2, 062	419	598	346	276	113	311	479	682
December, 1923	522	118	150	82	73	26	71	163	169
December, 1924	617	121	171	106	88	31	101	123	199
December, 1925	654	137	190	108	90	38	91	152	209
December, 1926	639	135	165	118	88	37	96	147	219

Source: Department of Commerce, Survey of Current Business, which see for original sources and method of compilation.

Data furnished by trade associations, which do not include all mills, show that the combined production of paper and board increased in 1926 as compared with 1925 relatively more than in 1925 as compared with 1924. Production was quite uniform from month to month and seasonal variation was small, as may be seen in Table 4·

Newsprint.

Monthly and annual data on the production of newsprint paper in both the United States and Canada are compiled by the Newsprint Service Bureau. According to these figures, there was a marked increase in newsprint production in both countries in 1925 as compared with 1924, and a still greater increase in 1926. Production in the United States, while it had previously been but little higher than immediately before the war, in 1926 showed an expansion of about 10 per cent over 1925 and nearly 30 per cent over 1916. The Canadian production, most of which is shipped to the United States, in 1926 showed an increase of nearly 24 per cent over 1925 and was over three times as large as in 1916. Imports into the United States, about 90 per cent of which are of Canadian origin, have also shown phenomenal growth.

Table 5.—Newsprint: Production in United States and Canada, Total Imports and Exports, and Imports of United States from Canada

[Thousands of short tons]

Calendar year	Domestic production [1]	Total imports	Total exports	Imports from Canada	Canadian production
1913	1,305	220	43	(2)	350
1914	1,313	315	61	(2)	415
1915	1,239	368	55	(2)	489
1916	1,315	468	77	(2)	608
1917	1,359	559	94	(2)	686
1918	1,260	596	97	581	735
1919	1,375	628	110	624	803
1920	1,512	730	46	679	875
1921	1,225	793	17	657	808
1922	1,448	1,029	26	896	1,082
1923	1,485	1,309	16	1,108	1,266
1924	1,481	1,357	17	1,197	1,353
1925	1,530	1,448	23	1,295	1,522
1926	1,678	1,851	19	1,657	1,882

[1] Figures for census years differ slightly from those reported by the Bureau of the Census.

[2] Figures for imports of newsprint paper from Canada, by calendar years, are not available prior to 1918. However, the figures for fiscal years show that 99 per cent of the total imports of newsprint paper into the United States was imported from Canada in each of these years.

Sources: Newsprint Service Bureau; imports and exports from Bureau of Foreign and Domestic Commerce.

Monthly newsprint production figures for 1925 and 1926, in Table 6, show in addition to the seasonal variation inherent in the industry a regular and generally a pronounced increase for each month as compared with the same months in previous years. Imports have also increased steadily since 1922, and in 1926 were greater in volume than in any previous year. Exports of newsprint, on the other hand, while evidencing considerable variation from year to year, have decreased measurably since the close of the war.

Table 6.—Production and Imports of Newsprint, by Months

[In short tons]

Month	Production				Imports			
	1922	1924	1925	1926	1922	1924	1925	1926
Total	**1, 447, 688**	**1, 481, 425**	**1, 530, 316**	**1, 678, 669**	**1, 029, 268**	**1, 357, 233**	**1, 448, 425**	**1, 850, 675**
January	105, 808	131, 172	129, 442	140, 026	82, 482	107, 594	112, 586	126, 953
February	97, 786	119, 744	114, 268	129, 622	82, 390	103, 430	110, 942	133, 219
March	117, 507	119, 934	127, 835	145, 910	78, 031	121, 904	127, 918	158, 400
April	111, 861	129, 614	133, 098	145, 327	77, 369	111, 944	123, 673	168, 463
May	129, 950	135, 910	129, 463	141, 032	81, 352	113, 262	123, 457	134, 870
June	127, 230	122, 549	128, 847	142, 166	84, 337	116, 546	126, 407	161, 817
July	120, 839	115, 525	121, 550	140, 516	80, 337	112, 173	117, 479	153, 865
August	133, 236	117, 075	121, 339	139, 259	81, 780	109, 958	102, 741	161, 063
September	125, 402	117, 723	121, 594	136, 167	66, 570	107, 990	111, 188	139, 713
October	130, 682	130, 959	135, 662	143, 148	118, 010	114, 121	145, 088	172, 603
November	127, 983	119, 315	130, 539	140, 427	98, 115	113, 071	124, 861	169, 549
December	119, 404	121, 905	136, 681	135, 069	98, 494	125, 241	122, 085	170, 158

Sources: Production from Newsprint Service Bureau, except for year 1922, which is from Federal Trade Commission; imports from Bureau of Foreign and Domestic Commerce.

Progress in Simplification.

Simplified practice recommendations were adopted by several general conferences in the paper and pulp industry during the year. As a result of one of these conferences a simplified practice recommendation was adopted covering stock sizes for paper for general printing and publishing, for book publishers, and for forms and letterheads. It was unanimously recommended also that all paper substance weights shall be stated in terms of the basic 25 by 40 inch size. Sufficient time, however, has not elapsed to permit the universal acceptance of this recommendation. Grocers' paper bags were reduced from 6,280 sizes and varieties to 4,700, which was estimated to permit a potential saving of $600,000 a year in paper stocks alone. The number of thicknesses of box board was reduced from 244 to 60 as the result of a simplified practice recommendation developed after several months of discussion. In tissue paper, 34 sizes and varieties were reduced to 9 as the result of a simplified practice program adopted by this industry. In addition to binder board, grades and qualities bond, ledger, and writing papers, and other paper products reported under the section on "Printing and Publishing" active work was under way at the end of the year toward simplification of waxed paper, paper boxes and cartons, salt packages, bolt and nut containers. Blank books, wrapping paper, file folders, merchandising packages and envelopes, were suggested as items in need of simplification.

PRICE MOVEMENT AND MARKET CONDITIONS

The Bureau of Foreign and Domestic Commerce has compiled a series of index numbers of prices of pulp and paper based on data published by the Paper Trade Journal, which is a continuation of the series instituted by the Federal Trade Commission. As will be seen in Table 7, the price of mechanical ground wood pulp, which fell markedly in 1924 and made a partial recovery early in 1925, rose in April, 1926, to the level of January, 1925, and remained stationary until the close of the year. Prices of domestic bleach sulphite pulp, which advanced at the beginning of 1925 and rose still further in the latter part of the year, remained stable until the second quarter of 1926 when they declined to the lowest point since 1924.

Table 7.—Index Prices of Selected Classes of Pulp and Paper

Month	Newsprint	Book paper	No.1 jute manila	Boards [2]	Ground wood-pulp	Domestic bleached sulphite pulp	General wholesale price index
1913: January	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920:							
July	271.4	383.6	294.7	369.2	690.5	241.4	241.0
October	301.6	397.3	336.8	353.8	571.4	431.0	211.0
1921:							
January	316.7	287.7	189.5	153.8	333.3	275.9	170.0
July	248.4	209.0	168.4	101.5	128.6	189.7	141.0
1922:							
January	195.8	180.3	178.9	115.4	152.4	155.2	138.0
July	184.4	184.9	178.9	103.8	133.3	137.9	155.0
1923:							
January	195.3	198.6	178.9	192.3	209.5	155.2	156.0
July	197.9	195.2	178.9	176.9	166.6	155.2	151.0
1924:							
January	195.3	195.2	178.9	161.5	190.5	146.6	151.0
July	190.1	196.6	157.9	119.2	131.0	120.7	147.0
December	190.1	184.9	189.5	126.9	131.0	119.0	157.0
1925:							
January	182.3	184.9	189.5	134.6	142.9	129.3	160.0
April	182.3	181.5	178.9	146.2	133.3	129.3	156.2
July	182.3	181.5	191.4	133.8	133.3	129.3	159.9
October	182.3	181.5	189.5	133.8	133.3	137.9	157.6
December	182.3	181.5	189.5	133.8	133.3	137.9	156.2
1926:							
January	169.3	181.5	189.5	133.8	133.3	137.9	156.0
April	169.3	181.5	189.5	142.3	142.9	137.9	151.1
July	169.3	181.5	189.5	126.9	142.9	129.3	150.7
October	169.3	181.5	189.5	134.6	142.9	125.9	149.7
December	169.3	181.5	189.5	126.9	142.9	125.9	147.2

[1] Based on average prices of machine finished and supercalendered book paper.
[2] Based on average prices of newsboard and chipboard.

Sources: Newsprint index was based upon Federal Trade Commission quotations on weighted average contract price standard roll news, f. o. b. mill in carload lots, to and including the second quarter, 1923; all other paper and pulp index numbers compiled from minimum market prices as given in the Paper Trade Journal in its issues nearest the 15th day of the first month of the quarter. Wholesale price index from United States Department of Labor.

Newsprint declined slightly in 1925 from the 1924 level and at the opening of 1926 experienced a still further drop after which it remained unchanged during the remainder of the year. Book paper prices have shown no change in level since the second quarter of 1925 when they decreased slightly as compared with 1924. The demand for these grades is fairly constant and is but slightly affected by general economic conditions.

Wrapping paper and board prices are more variable and are influenced much more strongly by the general level of business activity. The former, however, has experienced no change since the middle of 1925 when a slight drop was noted, while the latter has fluctuated considerably during both 1925 and 1926, principally in a downward direction.

Table 8 shows the changes in the price of newsprint in 1913, and from 1919 to 1926 by quarterly periods.

Table 8.—Newsprint Prices

[Cents per pound]

Year	January	April	July	October	Yearly average
1913	1.92	1.94	2.01	1.99	1.96
1919	3.68	3.64	3.63	3.84	3.74
1920	4.36	4.73	5.21	5.79	5.10
1921	6.08	5.41	4.77	4.19	5.02
1922	3.76	3.57	3.54	3.61	3.62
1923	3.75	3.83	3.80	3.75	3.78
1924	3.75	3.75	3.65	3.65	3.70
1925	3.50	3.50	3.50	3.50	3.50
1926	3.25	3.25	3.25	3.25	3.25

Sources: Federal Trade Commission to and including April, 1923; thereafter minimum quotations published in the issue of the Paper Trade Journal nearest the 15th of each month.

Increased demand was noticeable in practically all lines during 1925 and 1926, which was most pronounced in newsprint and to a somewhat lesser degree in book paper and boards. This was owing largely to an increase in the circulation of our daily and Sunday papers, combined to some extent with a growth in the actual number of such papers published. There was also, according to the Newsprint Service Bureau, an increase of 5 per cent in advertising space utilized in 1926 as compared with 1925. The demand for book paper showed a less pronounced growth, while box and container boards were in greater demand because of a growth in the use of those materials as shipping containers. This increase is also a reflection of the upward trend in business and the greater movement of merchandise.

FOREIGN TRADE

Imports.

Imports of pulpwood, pulp, and paper during 1926 were valued at $275,471,000, an increase of nearly 10 per cent over similar imports in 1925 and a little more than 17 per cent over 1924. Total imports of paper base stocks aggregated $121,527,000 in 1926 as compared with $118,795,000 in 1925. Of the 1926 total over 75 per cent represents pulp, 12 per cent pulpwood, and the remainder rags and other stocks. A slight decline in both quantity and value of pulpwood imports occurred in 1926. (Table 9.)

Table 9.—Exports and Imports of Pulpwood, Wood Pulp, Paper, Paper Manufactures, and Printed Matter

NOTE.—Figures for quantity are in short tons for all items except imports of pulpwood, which is shown in cords.

Item	Quantity (short tons)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
EXPORTS								
Total pulpwood, pulp, and paper products					46,347	47,242	50,664	53,726
Paper base stocks, total					3,294	4,249	5,783	4,964
Wood pulp	23,068	32,098	37,995	34,225	1,295	2,042	2,441	2,084
Pulpwood, rags, and other paper stock					1,999	2,207	3,342	2,879
Paper, except printed matter, total					24,046	23,065	23,844	26,829
Newsprint	16,357	17,159	22,738	19,259	1,637	1,773	2,025	1,849
Book paper, including surface coated	15,286	10,970	10,575	11,994	3,607	2,585	2,496	2,467
Wrapping paper	13,374	12,529	14,368	16,508	2,176	2,041	2,173	2,234
Writing, envelopes, and cover paper	5,318	4,040	4,134	7,677	1,962	1,500	1,606	2,628
Tissue, toilet, and crêpe paper	4,004	3,663	4,393	4,836	1,392	1,299	1,563	1,728
Bristol board and strawboard	29,085	36,010	16,754	20,920	2,839	2,877	1,711	2,203
Bags, boxes, and cartons	9,810	12,028	14,988	15,680	1,936	2,139	2,435	2,457
Vulcanized fiber, sheets, strips, rods, and tubes	2,321	2,066	2,790	2,677	1,296	1,315	1,664	1,590
All other					7,200	7,536	8,171	9,672
Books and other printed matter, including playing cards					19,007	19,928	21,037	21,934
IMPORTS								
Total pulpwood, pulp, and paper products					226,517	235,048	251,374	275,471
Paper base stocks, total					101,959	107,314	118,795	121,527
Pulpwood (cords)	1,347,927	1,279,975	1,483,231	1,383,619	13,406	13,108	15,130	14,176
Wood and other pulp	1,384,092	1,525,097	1,665,992	1,735,633	74,793	75,868	81,986	91,508
Rags and other paper stock	315,426	356,030	386,251	334,561	13,760	18,338	21,679	15,842
Paper, except printed matter, total					115,659	117,673	119,201	139,537
Standard newsprint	1,308,843	1,357,233	1,448,425	1,850,675	98,021	101,297	103,717	123,982
All other printing paper	8,397	13,355	8,305	8,188	831	1,126	809	827
Wrapping paper	44,006	24,825	9,985	7,212	3,906	1,931	875	758
Pulpboard and other paper board	51,788	54,360	51,526	55,493	2,962	2,861	2,659	2,634
Cigarette paper	6,097	5,490	5,326	4,138	3,211	3,028	2,935	2,183
Tissue paper	1,018	1,202	1,357	1,441	917	986	1,164	1,405
All other					5,811	6,444	7,041	7,749
Books and other printed matter					8,900	10,061	13,378	14,407

Source: Bureau of Foreign and Domestic Commerce.

Total imports of paper except printed matter aggregated $139,537,000 in 1926, an increase of over 17 per cent as compared with 1925. The major portion of this increase was in newsprint. Slight decreases in value occurred in imports of wrapping paper, cigarette paper, and paper board, although the actual tonnage of board imported showed a slight increase.

Exports.

Our total exports of pulp and paper products in 1926 amounted in value to $53,726,000, an increase of nearly 6 per cent over 1925 and almost 12 per cent over 1924. Total paper except printed matter exported was valued at $26,800,000, paper base stocks at slightly under $5,000,000, and books and other printed matter at nearly $22,000,000. The largest individual items entering into our export trade were writing paper, envelopes, cover paper, book and surface coated papers, and bags, boxes, and cartons. Wrapping paper and boards were also of considerable importance. All of these articles showed marked increases in the actual tonnage exported, except vulcanized fiber which showed a decrease. Table 9 shows the quantity of our exports of wood pulp and paper for each of the past four years.

Activity of Principal Foreign Countries.

The principal pulp and paper producing countries outside the United States are Canada, Sweden, Germany, Norway, and Finland. While Canada is the most important from the tonnage point of view, its specialty is newsprint, most of which is exported to the United States as a noncompetitive product, supplying the great demand which can not be met by our domestic mills. Imports of newsprint from Canada in 1926 exceeded those of 1925 by over 360,000 tons and constituted approximately 90 per cent of our total newsprint imports. Norway, Germany, and Sweden showed large decreases in exports of newsprint to this country in 1926, while imports from Finland were larger.

During the year conditions have been fairly stable in the northern European countries, with a tendency toward a slight price decrease in several lines of the paper business. This factor has made competition with these countries in consuming markets difficult to meet and has temporarily decreased the possibility of holding certain markets on a purely quality basis.

Among the outstanding features of 1926 abroad may be mentioned the dissolution of the Dresden Cardboard Sales Union and the demand for lower prices of newsprint on the part of publishers in Germany. Many realignments in the British industry have been accomplished, including the acquisition of several large mills in Germany and the continued large investment of British capital in the paper industry in the Dominions and Colonies.

The Finnish chemical pulp industry was notably prosperous and present indications point to an increase of 80,000 metric tons in the capacity of the mills in 1927. The Norwegian mills also have matured definite plans for an expansion of about 65,000 tons of mechanical pulp and 20,000 tons of chemical pulp capacity in 1927 despite the unfavorable reaction in 1926 from the rapid rise in Norwegian exchange, the British coal strike with its consequent increase in fuel and transportation costs, and a labor conflict in the industry which began in August.

The French newsprint industry decreased production owing to continued heavy imports from Germany on reparations account, while the Belgian industry experienced alternate periods of activity and depression owing to exchange fluctuations. The Italian paper industry has been somewhat embarrassed by the growing domestic pulp shortage and Italian manufacturers showed marked progress in the perfection of a method for making newsprint from straw in 1926.

PRINTING AND PUBLISHING

Position and Character.

Apart from a few minor branches, the printing and publishing industry includes the three main census designations of (1) newspapers and periodicals, (2) book and job printing, and (3) music printing and publishing, or publishing only. The first two are often combined in a single establishment, but it frequently happens that a firm devotes its activities to one branch exclusively. Some publishing houses do no actual printing while many printing firms are not publishers; on the other hand, some do both. For the purpose of this study music printing is combined with book and job printing. The three major branches combined employed over 251,000 wage earners in 1925, an increase of 2 per cent over 1923, while the value added by manufacture to the raw materials used was about $1,660,000,000, a sum greater by 15 per cent than in 1923. The newspaper and periodical branch alone accounts for a value of $1,068,000,000 added by manufacture. Data for 1926, which is not a census year, are not available. A tabulated summary of the returns for census years since 1899 is shown in Table 10.

Table 10.—Printing and Publishing and Related Industries

Branch of industry and year	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				Thousands of dollars			
Newspapers and periodicals:							
1899	15, 305	94, 604	70, 089	50, 333	50, 215	222, 984	172, 769
1914	19, 317	114, 375	181, 763	88, 561	129, 082	495, 906	366, 824
1919	17, 362	120, 381	194, 074	144, 348	300, 385	924, 153	623, 768
1921 [1]	10, 453	107, 534	(2)	174, 359	371, 124	1, 123, 710	752. 586
1923 [1]	10, 267	115, 646	203, 454	196, 804	363, 480	1, 268, 502	905, 022
1925 [1]	10, 625	117, 001	237. 662	217, 541	379, 541	1, 447, 661	1, 068, 121
Book and job, including music:							
1899	7, 006	68, 388	37, 285	33, 917	36, 642	124, 070	87, 428
1914	12, 295	113, 994	113, 804	78, 987	97, 500	314, 602	217, 102
1919	13, 249	123, 904	132, 110	142. 403	213, 191	612, 255	399, 064
1921 [1]	9, 865	121, 955	(2)	182, 313	218, 155	704, 100	485. 945
1923 [1]	10. 185	130, 809	153, 594	202, 583	222, 456	752, 854	530, 398
1925 [1]	10, 431	134, 271	170, 648	221, 292	230, 518	821, 977	591, 459
RELATED INDUSTRIES 1925 [1]							
Bookbinding and blank-book making	970	20, 836	16, 147	26, 006	24, 127	81, 600	57, 473
Engraving, steel and copperplate, and plate printing	368	7, 259	5, 764	10, 169	7, 628	32, 106	24, 478
Lithographing	331	16, 957	28, 623	27, 107	32, 171	98, 721	66, 550
Engraving (other than steel, copperplate, or wood), chasing, etching, and diesinking	188	1, 827	1, 753	2, 691	2, 177	8, 623	6, 446
Engraving, wood	22	117	32	234	46	525	479
Photo-engraving, not done in printing establishments	577	9, 868	6, 735	24, 321	8, 393	58, 640	50, 248
Stereotyping and electrotyping, not done in printing establishments	193	4, 283	13, 774	9, 207	4, 280	22, 361	18, 081
Printing materials, not including type or printing ink	71	888	1, 981	1, 379	1, 787	6, 525	4, 739
Type founding	18	537	1, 236	603	705	2, 451	1, 745
Engravers' materials	16	177	921	276	1, 202	2, 014	812
Wall paper	49	5, 069	11, 528	5, 863	14, 999	30, 069	15, 070

[1] Figures do not include data for establishments reporting products under $5,000 in value.
[2] Not called for in schedule for 1921.

Source: Bureau of the Census.

Production.

The most recent statistics available covering the printing and publishing industries are for the year 1925. In the newspaper and periodical field the number of establishments increased by about 3.5 per cent in 1925 as compared with 1923 and there was a marked growth in the primary horsepower. Changes in price levels affect the values of products from one census to another, but they serve to indicate the relative importance of the different classes of printed matter. The total value of the products in the newspaper and periodical class increased 14.5 per cent in 1925 as compared with 1923, while the value of advertising alone was over 16 per cent greater. (Table 11.) Subscriptions and sales also increased over 10 per cent as compared with 1923. Of the total value of newspapers and periodicals in 1925, about 70 per cent was received from advertising, and 30 per cent from subscriptions and sales. The consumption of newsprint paper in 1926 is estimated at 3,510,000 tons, an increase of nearly 12 per cent over 1925, while advertising space taken in 1926 was nearly 4 per cent greater than in 1925. An increase in the total number of newspapers and periodicals published is indicated in Table 12 but this was entirely in the field of weekly and monthly journals, all others, including daily newspapers, showing a decrease. There was an increase in circulation in each class of periodical except those published triweekly and semiweekly.

Table 11. Products of the Newspaper and Periodical Branch, by Class

[In thousands of dollars]

Class	1914	1919	1921	1923	1925	Per cent increase or decrease (−)	
						1914–1925	1923–1925
Total value	**495, 906**	**924, 153**	**1, 123, 710**	**1, 268, 502**	**1, 447, 661**	**191. 9**	**14. 1**
Newspapers and periodicals	418, 849	806, 306	1, 005, 270	1, 154, 228	1, 321, 381	215. 5	14. 5
Advertising	255, 421	528, 299	676, 987	793, 729	923, 249	261. 5	16. 3
Subscriptions and sales	163, 428	278, 006	328, 284	360, 498	398, 132	143. 6	10. 4
Books and pamphlets and job printing	67, 599	107, 949	112, 407	113, 059	125, 907	86. 3	−11. 4
Books and pamphlets	20, 357	34, 199	27, 418	33, 490	33, 028	62. 2	−1. 4
Sheet music and books of music	638	1, 116	161	69	131	−79. 5	89. 9
Job printing (generally), etc.[1]	46, 603	72, 634	84, 828	79, 500	92, 748	99. 0	16. 7
All other products	9, 458	9, 898	6, 033	1, 215	373	−96. 1	−69. 3

[1] Includes "ready prints" (patent insides and outsides), machine composition for others, bookbinding, electrotyping, engraving, lithographing, etc.

Source: Bureau of the Census.

Table 12.—Newspapers and Periodicals, by Class, Number, and Circulation

Class	Number of periodicals					Aggregate circulation per issue (thousands)				
	1914	1919	1921	1923	1925	1914	1919	1921	1923	1925
All classes	**22, 754**	**20, 489**	**13, 167**	**13, 077**	**13, 901**					
Daily, except Sunday	2, 580	2, 441	[1] 2, 343	[1] 2, 314	[1] 2, 116	28, 777	33, 029	[1] 32,342	[1] 35,733	[1] 37, 407
Sunday	571	604	538	602	597	16, 480	19, 369	20, 853	24, 512	25, 630
Triweekly	84	93	85	79	74	549	492	524	432	401
Semiweekly	583	452	423	407	383	2, 484	2, 020	1, 540	2, 025	1, 934
Weekly	15, 172	13, 375	7, 054	6, 887	7, 568	50, 337	51, 902	43, 521	47, 861	50, 815
Monthly	2, 822	2, 647	1, 907	1, 907	2, 271	79, 191	91, 682	83, 459	91, 654	111, 876
Quarterly	500	489	515	555	553	18, 854	18, 921	21, 745	22, 198	22, 840
All other classes	442	388	302	326	339	8, 923	5, 068	6, 962	7, 629	8, 450

[1] Includes for 1925, 164 daily publications other than newspapers, with an aggregate circulation of 633,067; for 1923, 43 daily publications other than newspapers, with an aggregate circulation of 262,037; and for 1921, 9 daily publications other than newspapers, with an aggregate circulation of 36,085 per issue.

Source: Bureau of the Census.

Immediately following the close of the war space in periodicals occupied by advertising increased by one-third over what it had been prior to that time. This expansion continued in 1920, but there was a sharp curtailment in the following year. Since 1921 there has been a steady growth of both magazine and newspaper advertising which has reflected the expansion of all American business.

Table 13.—Advertising Statistics

Year	Thousands of agate lines		Year	Thousands of agate lines	
	Magazine [1]	Newspaper [2]		Magazine [1]	Newspaper [2]
1913	14, 688		1920	27, 660	1, 149, 984
1914	13, 932		1921	17, 760	1, 039, 932
1915	13, 764		1922	18, 876	1, 093, 572
1916	16, 980	737, 280	1923	23, 436	1, 168, 824
1917	17, 880	752, 052	1924	24, 408	1, 157, 628
1918	16, 128	732, 804	1925	25, 128	1, 222, 992
1919	22, 680	1, 006, 308	1926	27, 264	1, 261, 656

[1] These figures represent the number of lines of advertising carried by the 60 leading magazines as compiled by Printer's Ink.

[2] Compiled by the New York Evening Post from 22 identical cities. For the years 1916 to 1918 the totals were partially estimated.

Foreign Trade.

The importation of printed matter of all kinds has shown a considerable increase since 1922, items entered in 1926 having more than doubled in value as compared with the former year. The total value of such imports in 1926 was $14,407,000, an increase of slightly more than 8 per cent over 1925. The greater portion of the increase was confined to noncompetitive and duty-free articles.

Our exports of printed matter have shown less pronounced increases than our imports. Exports amounted to a value of about $22,000,000 in 1926 as compared with $21,000,000 in 1925 and $17,000,000 in 1922. While the value of our imports of printed matter in 1922 was less than half the value of our exports, this ratio has increased steadily and in 1926 our imports reached a value about two-thirds that of our exports.

Progress in Simplification,

Several years ago a movement was set on foot to bring about standardization of inquiry, purchase order, and invoice forms. The Railway Accounting Officers' Association joined forces with the National Association of Purchasing Agents and other associations. Preliminary studies were made to determine the number of variations which prevailed. The Division of Simplified Practice was asked to call a general conference in 1925, at which time a simplified practice recommendation was adopted reducing the number of inquiry, purchase order, and invoice forms from thousands of variations to three national standard forms, which was vigorously supported by the printing industry, purchasing agents, accounting groups, and others. Warehouse forms were reduced from thousands to 15, in accordance with the unanimous action of a general conference. A simplified practice recommendation has also been developed covering definite sizes for bank checks, notes, deposit slips, notices, etc. Preliminary work is now under way for the promotion of uniform business and professional classifications. A survey is in process by the Bookbinders' Association to obtain data upon which to base a recommendation for simplified sizes of binder board. The division is cooperating with the writing-paper group in a survey of the attitude of consumers toward the standardization of grades and qualities of bond, ledger, and writing papers. Simplification of the excessive varieties of sizes and types of composition books, stationery, printed forms (data sheets and statistical charts), magazines, catalogues, department-store manifolds, newspaper stock, pamphlets, export bills of lading, window envelopes, contract forms, and manuscript paper has also been suggested.

CHEMICALS AND RELATED PRODUCTS

PRODUCTION

Census Statistics.

The term "Chemical and related industries" includes a multitude of primary and elaborative activities. More than 20 of the industries distinguished by the Bureau of the Census may be considered as falling directly within this field, and many of these make numerous products. Many industries outside this group proper use chemical processes to a large extent. Among these are the rubber, paper, oil refining, metallurgical, and ceramic industries, discussed elsewhere in this volume. Still other industries are quite dependent upon the products of the chemical industry; this is notably true of the textile industries and of agriculture.

Prior to 1914 the more technical branches of chemical manufacture were comparatively unimportant in the United States, the major branches then developed being naval stores, phosphate rock, fertilizers, sulphur, the commoner heavy chemicals, alkalies and acids, metallurgical by-products, and metallic earths. The United States was largely dependent on imports for many important chemical products.

During the period of the World War, with the supplies from foreign countries limited for some commodities and entirely cut off for others, American chemists and manufacturers were forced to turn their attention to the manufacture of these essential commodities. Between the years 1914 and 1919, therefore, the chemical industry grew rapidly. Then followed the period of general depression with a rather rapid recovery in 1923. From 1923 to 1925 there was still greater expansion with many notable changes not only in the substitution of some commodities for others but also in the methods of manufacture. Each year synthetic products are being used in larger amounts, chiefly because of price.

The principal statistics for the chemical and related industries as a group for the last five censuses are shown in Table 1. The value of products for the group in 1925 was $2,852,000,000 (a figure involving some duplication owing to the use of products of one establishment as materials for another), about 8 per cent greater than the value for 1923 and about two and two-thirds times the figure for 1914. The increase as compared with the pre-war year is partly owing to advance in prices, but the advance has been decidedly less conspicuous in the chemical industries than in most others. The average index of prices for the chemical group, as classified by the

Department of Labor, was in 1925 only 34 per cent above the 1913 level, as compared with 59 per cent for all commodities.

Table 1.—The Chemical and Related Industries [1]

Year and industry	Establishments	Wage earners (average number)	Primary horsepower	Wages	Cost of materials	Value of products	Value added by manufacture
				In thousands of dollars			
THE GROUP AS A WHOLE							
1914	9, 848	187, 722	733, 924	98, 597	637, 421	1, 074, 035	436, 614
1919	9, 934	269, 335	1, 047, 846	288, 477	1, 623, 018	2, 751, 316	1, 128, 298
1921	7, 582	199, 363	(2)	210, 013	1, 122, 646	1, 960, 351	837, 705
1923	7, 707	254, 779	1, 397, 009	282, 350	1, 465, 385	2, 648, 987	1, 183, 602
1925	7, 597	247, 173	1, 477, 676	288, 842	1, 533, 848	2, 852, 414	1, 318, 566
1925							
Baking powders and yeasts	49	2, 931	36, 633	4, 063	23, 376	74, 593	51, 217
Blacking, stains, and dressings	171	1, 869	2, 659	2, 165	9, 733	25, 055	15, 322
Bluing	23	176	366	185	1, 017	2, 167	1, 150
Bone black, carbon black, and lampblack	66	1, 505	7, 289	1, 722	5, 655	14, 565	8, 910
Candles	20	626	922	673	2, 786	5, 114	2, 328
Chemicals, not elsewhere specified	715	55, 694	657, 867	80, 435	271, 646	547, 003	275, 357
Cleaning and polishing preparations	299	2, 161	6, 279	2, 660	12, 707	34, 020	21, 313
Drugs, pharmaceutical and toilet preparations	2, 265	33, 823	58, 163	35, 917	172, 708	480, 940	308, 232
Dyestuffs and tanning materials	125	2, 495	32, 634	2, 987	22, 763	34, 784	12, 021
Explosives	103	5, 697	37, 808	7, 731	37, 877	69, 669	31, 792
Fertilizers	587	19, 644	152, 193	17, 743	137, 808	206, 773	68, 965
Glue, not elsewhere specified	55	3, 325	22, 807	3, 976	15, 338	25, 764	10, 426
Greases	316	5, 910	34, 707	8, 328	40, 509	64, 681	24, 172
Ink:							
Printing	109	2, 150	17, 041	3, 346	16, 253	34, 753	18, 500
Writing	28	524	700	596	2, 424	6, 084	3, 660
Oils	238	6, 485	45, 022	9, 534	211, 327	264, 172	52, 845
Paints and varnishes	923	25, 490	143, 111	35, 420	293, 943	470, 736	176, 793
Salt	70	6, 308	54, 647	7, 261	13, 849	34, 253	20, 404
Soap	272	15, 406	56, 697	18, 526	184, 874	278, 273	93, 399
Sulphuric, nitric, and mixed acids	36	2, 196	22, 120	3, 103	11, 066	23, 307	12, 241
Turpentine and rosin [3]	1, 007	29, 413	3, 138	15, 190	11, 887	42, 364	30, 477
Wood distillation	106	4, 217	17, 907	4, 305	15, 824	25, 283	9, 459
Rayon [4]	14	19, 128	66, 966	22, 976	18, 478	88, 061	69, 583

[1] The following industries, which are included in the census classification as allied chemical industries, are not included in this table: Ammunition, coke, fireworks, gas, cottonseed oil and cake, petroleum refining, mucilage, and liquors, malt, vinous, and distilled; but the turpentine and rosin industry, which is not included in the census classification, is here included.

[2] Not called for in schedule for 1921.

[3] Crop year ended Mar. 31.

[4] Made a separate industry in 1925. Included in "Chemicals not elsewhere classified" for 1923 and prior years.

Source: Bureau of the Census.

Table 2 shows comparative statistics for three censuses for 10 of the principal individual industries of the group. Each establishment is assigned to a given industry according to its principal product, although it may also incidentally make products other than those indicated by the industry designation. Turpentine and rosin, paints and varnishes, and drugs, pharmaceutical and toilet preparations showed particularly large increases in value of output in 1925 as compared with 1923, amounting to 20 per cent, 16 per cent, and 13 per cent, respectively. The largest decrease, 13 per cent, was shown by chemicals but this resulted largely from lower prices.

Table 2. –Comparative Statistics for Major Chemical and Related Industries

NOTE.—Figures do not include by-products of other establishments.

[Values in thousands of dollars]

Industry	Number of wage earners			Value of products			Value added by manufacture		
	1914	1923	1925	1914	1923	1925	1914	1923	1925
Bone, carbon, and lampblacks	339	1, 303	1, 505	1, 464	14, 600	14, 565	778	9, 305	8, 910
Chemicals	32, 311	74, 897	55, 694	158, 054	630, 870	547, 003	68, 603	313, 969	275, 357
Drugs, pharmaceutical and toilet preparations	26, 561	34, 830	33, 823	175, 452	427, 440	480, 940	103, 897	261, 083	308, 232
Explosives	6, 306	6, 388	5, 697	41, 433	75, 029	69, 669	15, 806	35, 533	31, 792
Fertilizers	22, 815	18, 572	19, 644	153, 196	183, 089	206, 773	45, 241	55, 108	68, 965
Paints and varnishes	16, 083	22, 818	25, 490	145, 624	404, 134	470, 736	57, 159	155, 180	176, 793
Soap	14, 172	17, 002	15, 406	127, 942	276, 403	278, 273	39, 075	102, 857	93, 399
Sulphuric, nitric, and mixed acids	3, 064	2, 357	2, 196	15, 215	24, 405	23, 307	8, 481	12, 710	12, 241
Turpentine and rosin [1]	34, 817	34, 328	29, 413	20, 990	35, 167	42, 364	15, 454	26, 194	30, 477
Wood distillation	3, 010	4, 123	4, 217	10, 284	29, 695	25, 283	3, 555	12, 426	9, 459

[1] Figures for 1923 and 1925 are for crop years ended Mar. 31, following years specified.

Source: Bureau of the Census.

The total values of the major groups of chemical and related commodities manufactured by all concerns, regardless of the industry in which the individual concern may be classified, are shown in Table 3. As in the preceding tables, 1925 figures are preliminary and subject to revision. Products not made for sale but for further transformation in the same establishment are not included. Some items, such as linseed oil, glue, and cleansing and polishing preparations, have been omitted because figures for different censuses are not comparable. The increases in 1925 as compared with 1914 in several of the groups represent the phenomenal growth of industries which received their impetus during the war.

The development of the plastics industry illustrates the possibilities offered to substitute products. Some of the reductions in sales of chemicals in 1925 from 1923 are indicative of a growing tendency on the part of manufacturers to package and sell their goods under proprietary names, whereas formerly they sold in bulk. Insecticides, an important branch, is regulated by demand of agriculturists, and varies from year to year. The setback in the wood-distillation industry is owing to the increasing use of synthetic methanol. The value of the gases manufactured in 1925 was more than five times that of 1914, showing with what rapidity a large industry can be developed after new processes have once been evolved, production put on a commercial basis, and consumption assured. The higher processed chemicals, such as druggists' preparations, medicinal and pharmaceutical preparations, prepared medicines, essential oils, and perfumery and toilet preparations, all recorded large expansions both over 1923 and 1914. Undoubtedly the general adoption of the use of perfumery and toilet preparations is responsible for this particular industry expanding to more than five and one-half times its 1914 figure. The associated publicity campaign instituted by the paint and varnish manufacturers has contributed to the trebling of the output of this industry.

Table 3.—Value of Output of Chemicals and Certain Related Products

NOTE.—Figures include both products of establishments making primarily the articles specified and those made as by-products by other establishments. They cover only products made for sale as such.

[In thousands of dollars]

Item	1914	1923	1925 [1]	Item	1914	1923	1925 [1]
CHEMICALS				RELATED PRODUCTS			
Acids	32, 837	82, 027	82, 613	Druggists' preparations	49, 376	78, 577	80, 921
Nitrogenous and fixed nitrogen compounds	9, 870	30, 436	31, 410	Proprietary medicines and compounds	99, 970	230, 277	247, 294
Sodium compounds	32, 626	111, 848	110, 096	Perfumery and cosmetics	25, 965	119, 237	147, 393
Potash and potassium compounds	7, 906	6, 319	6, 071	Essential oils	2, 565	3, 394	5, 882
Alums, aluminum, and compounds	(2)	11, 067	11, 581	Natural dyestuffs and tanning extracts	21, 383	38, 866	36, 278
Bleaching compounds	5, 302	16, 729	17, 528	Explosives	41, 433	75, 394	69, 669
Coal-tar products	13, 492	121, 893	101, 711	Fertilizers	169, 018	192, 968	214, 809
Plastics	[3] 13, 896	43, 178	48, 732	Wood distillation	10, 932	29, 780	25, 313
Compressed and liquefied gases	10, 415	54, 402	56, 405	Paints and varnishes	149, 173	440, 565	502, 458
Organic and inorganic chemicals, not elsewhere specified	52, 898	202, 595	203, 811	Bone, carbon, and lamp blacks	2, 972	16, 760	17, 189
				Turpentine and rosin	21, 313	[4] 38, 719	[4] 47, 822

[1] Figures preliminary and subject to change.
[2] No comparable data.
[3] Includes "Rayon."
[4] Crop year ending Mar. 31, following year specified.

Source: Bureau of the Census.

Production of Selected Chemicals.

Owing to the importance of a few commodities and industries of the chemical group special current production statistics are gathered for them, but in no instance, with the exception of certain data published by the Tariff Commission, are the statistics complete. These are summarized below for 1926.

Coal-tar products.—The Tariff Commission issues annually a report on coal-tar products and other synthetic organic chemicals. (Table 4.) The coal-tar products are divided into three groups—crudes, intermediates, and finished products. Inasmuch as the crudes and intermediates are largely used as the basis for finished products, the total value for the entire group involves much duplication. The production of crude coal tar is far in excess of the needs of the domestic coal-tar products industry. Out of 528,000,000 gallons produced in 1925, 192,000,000 were distilled, but only a part of this amount was completely refined because of the large demand for the partly refined products, such as motor fuel, solvents, and pitches.

The total output of intermediates in 1926 was about 230,000,000 pounds, about 9 per cent more than in 1925, and each class of the finished with the exception of perfumes and phenolic resins showed gains. The domestic production of coal-tar dyes increased 2 per cent in quantity in 1926 over 1925, and sales increased 9 per cent in quantity but decreased 3 per cent in total value. The increase in volume of sales is largely the result of a slight gain in the activity of the textile industry.

Table 4.—Production of Coal-Tar Chemicals

[Quantities in thousands of pounds; values in thousands of dollars]

Year	Intermediates	Finished products							
		Total	Dyes	Color lakes	Photographic chemicals	Medicinals	Flavors	Perfumes	Tanning materials and resins
Production (quantity):									
1923	231, 394	122, 950	93, 668	13, 079	343	3, 273	1, 458	1, 365	9, 764
1924	186, 597	97, 730	68, 679	9, 343	316	2, 968	1, 751	1, 895	12, 778
1925	210, 700	120, 554	86, 345	11, 415	327	3, 238	2, 207	2, 335	14, 687
1926	229, 549	122, 694	87, 991	11, 796	393	3, 679	2, 858	1, 870	14, 107
Sales (quantity):									
1923	83, 583	115, 298	86, 568	12, 627	321	2, 995	1, 442	1, 276	10, 069
1924	76, 898	93, 636	64, 961	9, 282	322	2, 688	1, 692	1, 946	12, 745
1925	86, 067	112, 672	79, 303	11, 308	349	3, 295	2, 149	2, 371	13, 897
1926	86, 895	120, 287	86, 268	11, 425	387	3, 575	2, 629	1, 678	14, 325
Sales (value):									
1923	18, 916	65, 898	47, 223	5, 125	444	4, 720	1, 780	789	5, 817
1924	18, 164	55, 933	35, 013	4, 046	461	5, 178	1, 471	946	8, 818
1925	19, 756	60, 811	37, 468	5, 544	475	6, 332	1, 409	884	8, 699
1926	18, 976	59, 406	36, 312	6, 023	505	6, 687	1, 482	750	7, 647

Source: United States Tariff Commission.

Insecticides and fungicides.—For the past four years the Bureau of the Census has been obtaining special reports of the production of arsenical insecticides. Based on the returns collected at the biennial censuses for 1923 and 1925, the 21 reporting companies represent approximately two-thirds of the industry. During the year ended June 30, 1926, production of these companies was considerably below that for the preceding years and amounted to 5,363,000 pounds of calcium arsenate, 16,898,000 pounds of lead arsenate, and 2,864,000 pounds of Paris green.

Wood chemicals.—During 1926 there was no great change in the wood chemical industry, production of crude methanol being 7,949,000 gallons, and acetate of lime, 157,077,000 pounds.

Paints and varnishes.—According to the special semiannual paint and varnish censuses by the Bureau of the Census, the year 1926 showed continued progress in the manufacture of varnishes, japans, and lacquers with a total output of 97,304,000 gallons, nearly one-fifth more than in 1925. Production of ready-mixed and semipaste paints amounting to 91,025,000 gallons, and paste paints amounting to 421,560,000 pounds was somewhat below the 1925 figure. However, this decline may be owing in part to the failure of 31 establishments to report for the last six months of the year, although these establishments made up 2 per cent or less of the total in the first 6 months of the year.

Progress in Simplification.

At a revision meeting of the standing committee held in October, 1926, the loaded paper shot shell industry further reduced its varieties from 1,747 to 650, the new schedule going into effect January 1, 1927. The agricultural insecticide and fungicide manufacturers, in conjunction with the consumers and distributers of their products, adopted a program of simplification and standardization of commodities and containers. At a general conference of manufacturers, distributers, and consumers of metallic cartridges, a simplified practice recommendation was unanimously adopted reducing the combinations from 348 to 256.

The movement begun two years ago by the paint and varnish industry to eliminate certain sizes of containers and to limit the maximum variety of colors has been attended with some progress. At a general conference held under the auspices of the Division of Simplified Practice a recommendation covering a limitation of varieties was adopted. The work is expected to be followed up with the hope of more definite developments.

As a matter of trade practice, it was decided to merchandise linseed oil on the pound basis, and it has been suggested that this basis be adopted for turpentine and rosin as well.

The simplification committee of the fertilizer industry is making progress in developing a tentative recommendation for the consideration of the industry, looking toward the reduction in varieties of brands and formulæ. It is expected that this movement will eventually meet with unqualified success.

MARKET CONDITIONS AND PRICE MOVEMENTS

The complexity of the chemical field is such that any general statement regarding price movements is subject to many outstanding exceptions. None of the various group price indexes is completely representative of the class under review. The most comprehensive index is that of the Department of Labor. This (1913 prices taken as 100) averaged 131 in 1926, an increase over pre-war years much less than that for commodities in general, and a three-point decrease from 1925. The price index of essential oils started to drop during the first quarter and continued falling throughout the year. This is largely owing to the price of peppermint oil which had been unusually high in the preceding year. Drugs, however, continued mounting each month until the index figure of 210 was reached during the last quarter.

The dye industry is always in the public eye because of its paramount position as a key industry. All leading world powers appreciate the significance of establishing, maintaining, and protecting a well organized coal-tar chemical industry because of the immediate adaptability of equipment and technique to the production of war munitions and supplies for purposes of national defense. It is interesting therefore to note that the weighted average price of all domestic coal-tar dyes sold in 1926 was 10 per cent less than the average in 1925 and that a steady decline has been registered from $1.26 per pound in 1917 to $0.42 in 1926.

Prices of numerous chemicals are still subject to pressure from European competition favored by the determination of European producers to regain former markets, and the development of synthetic substitutes. Vigorous competition in all chemical markets of the world has had its reflection in this country.

Table 5.—Price Indexes of Representative Chemicals

Monthly and quarterly average	Chemicals and drugs [1]	Drugs and pharmaceuticals [2]	Essential oils [2]	Crude drugs [2]	Sulphuric acid, 66° [1]	All commodities, wholesale [1]
1913	100				100	100
1914	101	100	100	100	100	98
1919	169	201	213	185	100	206
1920	200	196	265	202	112	226
1921	136	129	158	134	91	147
1922	124	120	131	174	76	149
1923	131	142	135	220	73	154
1924	130	155	140	208	71	150
1925	134	157	174	198	70	159
1926	131	156	170	205	73	151
1925						
January-March	135	155	157	215	70	161
April-June	133	156	155	193	70	156
July-September	135	158	175	191	70	160
October-December	135	157	210	193	70	157
1926						
January-March	132	156	204	196	70	154
April-June	131	156	174	204	73	152
July-September	131	155	162	207	75	150
October-December	129	156	142	210	75	148

[1] Bureau of Labor Statistics, Department of Labor.
[2] Oil, Paint, and Drug Reporter.

FOREIGN TRADE

The foreign trade in chemicals and related products was favorable; exports in 1926 again exceeded all records and imports approached the high figure of 1923. These products as here defined include not only the whole of Group 8—"Chemicals and allied products"—in the general foreign trade statistics, but also certain oils, gums, drugs, etc., from Group 2, and a few other less important products. However, they do not cover as many branches and commodities as given in the production tables. Total exports were valued at $183,316,000, an increase of 8 per cent over 1925, and imports at $210,326,000, an increase of but 1 per cent. Exports were 142 per cent and imports 82 per cent greater than during the average pre-war year. These gains in both cases represent more an increase in quantities than in prices. Both are the result of the development of the domestic chemical industry, the increase in imports being due chiefly to the purchase by American factories of larger quantities of raw and partly finished materials not indigenous to this country.

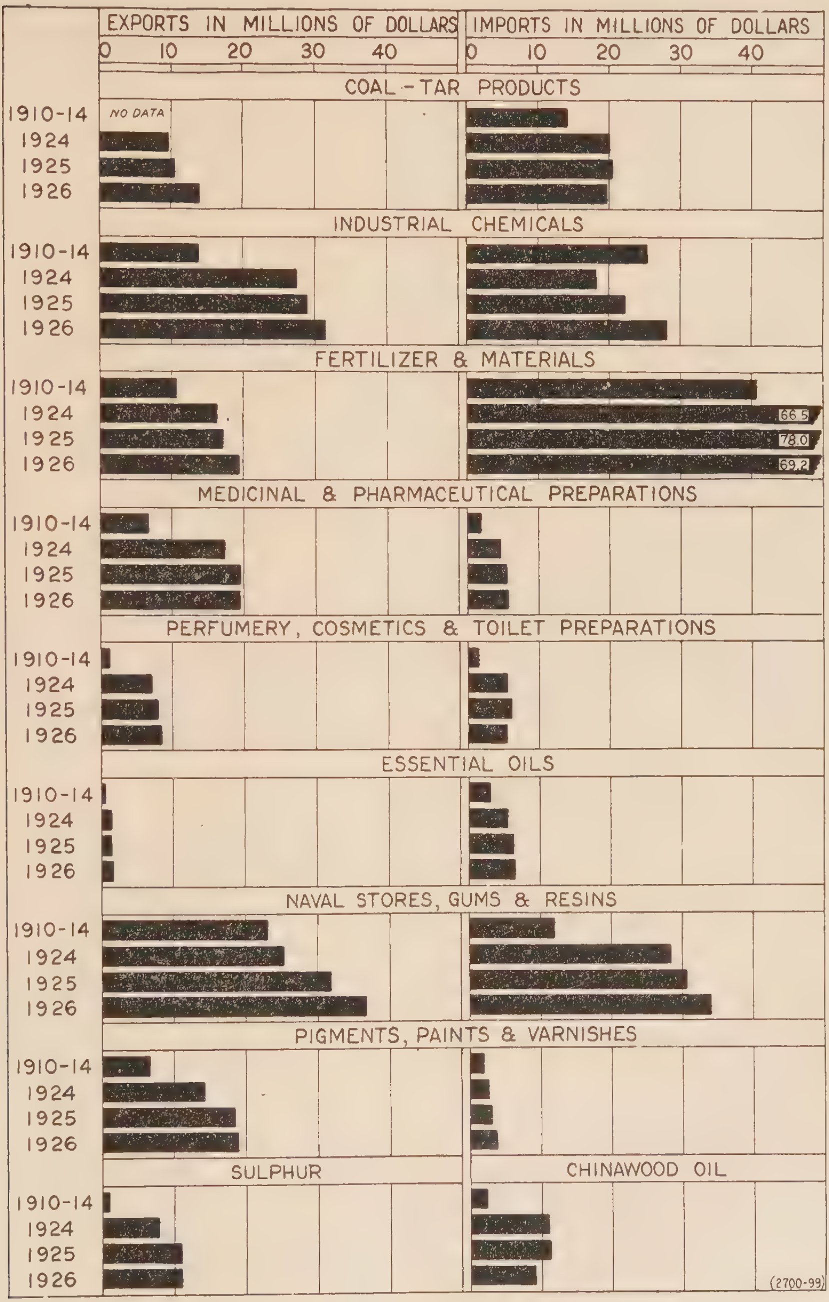
As in 1925, approximately one-half of the total value of exports of chemicals and related products went to five countries, the United Kingdom taking 17 per cent and Canada 13 per cent, followed by Japan, Germany, and Cuba. Exports to Cuba continued to be less than in the years 1923 and 1924, but those to the other four countries, especially to Canada and Japan, showed decided gains. Mexico with nearly $7,000,000, Argentina with $6,600,000, and Australia with $6,000,000 were other important customers. Shipments to Australia were more than $1,000,000 above the 1925 figure. The distribution of the exports by geographic regions was: 36 per cent to Europe, 27 per cent to North and Central America including Canada, 12 per cent to South America, 23 per cent to the Far East, and 2 per cent to Africa.

Highly processed products are relatively the more important among chemical exports and crude products among imports. For the most part exports of the crude commodities show comparatively little increase over pre-war figures and some show a decrease, while the exports of the more advanced products show marked gains in nearly all cases. Sodium nitrate alone accounts for one-fifth of the total imports in 1926, potash fertilizers for 7 per cent, shellac for 5 per cent, and Chinese wood oil for 4 per cent. There is somewhat less concentration in the case of exports; the largest single item, rosin, represents about 13 per cent of the total, and turpentine and sulphur each about 6 per cent. The geographic distribution of the exports of most of the individual commodities of this group is wide. In the case of most of the imports, however, a single country or a very few countries furnish us with a large part of the total, inasmuch as the products are peculiarly characteristic of the country or countries of origin and not widely distributed throughout the world.

Exports by Classes.

Coal-tar products.—Exportation of coal-tar chemicals is almost wholly a war and postwar development. Shipments abroad in 1926 were 31 per cent greater in value than in 1925. The improvement occurred in exports of crudes as an indirect result of the British coal strike. Benzol more than doubled in quantity and trebled in value; large purchases were made by England, Germany, and France. The quantity of coal-tar dyes exported was about the same as in 1925, but dropped 11 per cent in value owing to the decline in prices. As

Chart I.—EXPORTS AND IMPORTS OF CHEMICALS AND RELATED PRODUCTS



in other years, the Far East continued to be the main outlet for colors, dyes, and stains, the leading export commodities of the finished coal-tar products group. The share of China declined rather sharply to 32 per cent while that of Japan advanced to 23 per cent and of India to 10 per cent.

Table 6.—Exports and Imports of Chemicals and Related Products, by Groups

[In thousands of dollars]

Group	Exports				Imports			
	1910–1914	1924	1925	1926	1910–1914	1924	1925	1926
Grand total	75, 690	148, 428	169, 781	183, 316	115, 579	185, 350	207, 820	210, 326
Chemical group (8)	45, 886	104, 568	116, 345	124, 836	87, 667	120, 031	138, 340	134, 735
Coal-tar products	103	9, 976	10, 761	14, 093	14, 278	20, 119	20, 657	19, 805
Medicinal and pharmaceutical preparations	6, 801	17, 441	19, 768	19, 677	1, 788	4, 777	5, 730	5, 891
Industrial chemicals	14, 136	27, 638	29, 198	31, 110	25, 530	18, 227	22, 407	28, 215
Pigments, paints, and varnishes	6, 801	14, 326	18, 510	18, 887	2, 095	2, 823	3, 235	3, 859
Fertilizers and materials	10, 735	16, 508	17, 299	20, 040	40, 727	66, 531	78, 072	69, 249
Explosives and fuses	1, 747	3, 695	4, 691	4, 223	740	958	1, 104	1, 165
Soap	4, 354	7, 733	8, 036	8, 402	793	760	921	973
Perfumery and toilet preparations	1, 209	7, 252	8, 083	8, 404	1, 716	5, 836	6, 214	5, 577
Related products from other groups	29, 804	43, 860	53, 436	58, 480	27, 912	65, 319	69, 480	75, 591
Naval stores	23, 363	24, 570	30, 877	36, 019	47	152	277	517
Other gums and resins	--------	739	933	845	11, 878	28, 111	30, 474	33, 529
Crude drugs and botanicals	1, 935	4, 040	2, 961	3, 578	4, 166	7, 902	7, 934	9, 221
Essential oils	656	1, 675	1, 673	1, 695	3, 355	5, 528	6, 345	6, 573
Linseed and chinese-wood oils	308	318	355	251	2, 952	12, 159	12, 793	10, 123
Sulphur	1, 070	7, 894	11, 154	11, 155	--------	--------	--------	--------
Pyroxylin products	1, 589	3, 062	4, 011	3, 818	304	1, 695	1, 986	2, 864
Matches	86	187	160	103	617	2, 198	2, 278	2, 163
All other [1]	797	1, 375	1, 312	1, 016	4, 593	7, 575	7, 392	10, 600

[1] Includes bones, gelatin, glue, natural dyes, casein, and waxes.

Source: Bureau of Foreign and Domestic Commerce.

Medicinal and pharmaceutical preparations.—The year 1926 saw a halt in the very noticeable ascending movement of the trade of this subgroup, the total of $19,677,000 worth of exports being about the same as the 1925 figure. Since pre-war years, there has been a growing recognition of the quality of American medicinals and exports were nearly treble the pre-war average. Each year foreign sales of antitoxins, serums, and vaccines have increased and the distribution spread to new countries. Cuba, Mexico, Argentina, and Canada were the best markets in 1926. The item "all other" makes up the greater part of the total for medicinal and pharmaceutical preparations and consists chiefly of proprietary articles. These are sent to practically every country of the world, although England again stood out as the principal buyer having purchased 17 per cent of the total, while Cuba, Colombia, Mexico, and Canada each took 7 per cent.

Industrial chemicals.—In value exports of industrial chemicals in 1926 were double the pre-war average, and about 7 per cent greater than in 1925. The industrial chemical group illustrates the trend of chemical manufacturers and consumers toward altering their commodities so as to conform with modern economic demands. The general tendency of many of the industrial chemicals exported has been slightly downward while the increase which appears in the total of the group has been in the "all other" class. In this class are included chemical specialties, packaged goods for cleaning purposes largely composed of sodas, compressed gases, disinfectants, insecticides, fungicides, and similar commodities both household and agricultural. In 1926 the disinfectant and insecticide commodities were segregated from "all other" for the first time and totaled nearly $3,000,000. These were shipped to almost every foreign country, although England, Cuba, Denmark, Argentina, Canada, and Mexico bought the largest amounts.

Canada, in spite of expansion of its own domestic industry, was again the leading consumer of our industrial chemicals, having purchased 28 per cent. Other important buyers were England, Japan, Mexico, Cuba, and Argentina.

Pigments, paints, and varnishes.—Exports of this class in 1926 were greater in value than during any year since 1920, and nearly three times as great as before the war. This group likewise has world-wide distribution, but once more the United Kingdom assumed first place, having taken 17 per cent of the total. This position of the United Kingdom was owing to its large purchase of carbon black. Exports to Canada amounted to 15 per cent and consisted of rather large purchases of all classes. Cuba's 7 per cent of the total was largely made up of ready-mixed paints. Other important customers were Argentina, Japan, Philippine Islands, and Australia. Carbon black accounts for one-fifth of the group total and had its best sales in western Europe. Zinc oxide, the most important pigment shipped abroad, is sold in relatively few countries, England and Canada being the main factors. In contrast to pigments, foreign sales of which are limited in distribution, paints and varnishes are shipped in considerable amounts to numerous countries.

Fertilizers.—Before the war American exports of fertilizers consisted chiefly of raw phosphate rock, but during recent years sulphate of ammonia has been the largest single item and superphosphates and other prepared fertilizers have become important. The significant feature of the 1926 export trade was the higher average unit value; value advanced 14 per cent while total weight declined 4 per cent. Shipments are limited to comparatively few countries; the Far East affords the best outlets, especially Japan and the Netherlands East Indies, with lesser amounts shipped to the Philippine Islands, Australia, and New Zealand. For the first time British Africa participated in the trade, having taken exports valued at $300,000.

Despite keen competition from Germany, American manufacturers have been able to increase their exports of ammonium sulphate until during 1926 the total foreign sales exceeded all previous years' figures, reaching 174,000 tons, valued at $9,824,000. On account of the growing competition in Europe from North African phosphates, exports of American phosphates decreased sharply in 1926, while superphosphates remained about the same. The really encouraging phase of the fertilizer trade lies in the development of the "all other" class which amounted to half as much again in 1926 as in 1925. The bulk of this class is made up of a combined ammonium-phosphate material for use as a fertilizer.

Explosives.—Exports of explosives show less increase over pre-war than most groups, and in 1926 failed to reach the previous year's figures by 10 per cent. Reductions occurred in all classes. Mexico was the outstanding buyer.

Soaps, perfumery, and toilet preparations.—As compared with pre-war years, a considerable increase appears in the exports of soaps, both common and fancy, and a very great growth in the exports of perfumery and toilet preparations. American manufacturers have been extending their sales into practically every country of the world. Every item of the soap group was exported in larger amounts in 1926 than in 1925. American toilet preparations, particularly dentifrices, are found in practically every foreign country, but the English speaking countries buy the most. England's large consumption of American dental creams together with imports of talcum powder and other toilet preparations, places it above all other countries with one quarter of the total foreign sales. Canada, Australia, and British Africa buy much the same kind of goods but in smaller amounts. South and Central American countries are also steady customers. Perfumery and toilet waters registered a reduction of 13 per cent in 1926 from 1925 but all the other classes recorded increases.

Naval stores, gums, and resins.—The gain of 16 per cent in the value of exports of naval stores was almost entirely owing to prices. Rosin exports declined 7 per cent in quantity shipped but rose 30 per cent in value. Germany, England, Brazil, Japan, Argentina, and the Netherlands East Indies were the largest customers. Exports of gum spirits of turpentine changed but little in 1926 from 1925. Progress has been made in the use of wood rosin and wood turpentine, the exports of wood rosin having reached nearly $3,000,000 and those of wood turpentine $530,000. The quantity of naval stores exported is still somewhat less than before the war owing to competition encountered in foreign markets, notably with France.

Table 7.—Chemicals: Exports of Principal Products

[All figures for quantity are reported in thousands, the unit being the pound except as otherwise specified]

Article	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Grand total, value	--------	--------	--------	--------	**158, 461**	**148, 428**	**169, 781**	**183, 316**
Chemicals and allied products (Group 8)	--------	--------	--------	--------	**116, 355**	**104, 568**	**116, 345**	**124, 836**
Coal-tar chemicals—								
Crudes	--------	--------	--------	--------	5, 644	3, 270	2, 716	7, 060
Intermediates	2, 044	2, 096	2, 531	1, 750	383	363	471	340
Colors, dyes, stains	17, 925	15, 713	25, 800	25, 812	5, 565	5, 635	6, 694	5, 950
Other finished products	4, 953	2, 610	4, 145	2, 480	740	707	880	744
Medicinal and pharmaceutical preparations	--------	--------	--------	--------	16, 177	17, 441	19, 768	19, 677
Industrial chemicals—								
Acids and anhydrides—								
Sulphuric	8, 244	11, 273	7, 537	9, 224	169	180	152	174
Other	12, 327	12, 201	15, 608	16, 382	867	779	829	830
Alcohols—								
Methanol (gallons)	1, 430	641	408	417	1, 445	687	321	312
Other (gallons)		312	454	425		213	387	235
Ammonia and compounds	5, 232	3, 496	4, 521	4, 878	958	916	871	675
Aluminum sulphate	35, 611	32, 024	41, 512	44, 063	506	408	506	521
Baking powder	4, 156	3, 952	4, 026	4, 501	1, 762	1, 535	1, 533	1, 634
Calcium compounds—								
Acetate of lime	21, 951	23, 167	22, 038	18, 589	807	733	685	626
Calcium carbide	8, 244	9, 668	4, 855	4, 534	384	428	208	184
Bleaching powder	28, 828	21, 602	27, 389	20, 858	525	380	472	388
Copper sulphate (blue vitriol)	2, 291	2, 988	6, 139	4, 799	130	143	286	231
Dextrin	16, 206	22, 191	22, 678	22, 363	626	900	1, 031	906
Formaldehyde	3, 337	2, 898	2, 799	2, 387	430	322	291	226
Glycerin	1, 767	1, 416	1, 367	768	319	238	282	192
Potassium compounds	7, 995	3, 845	4, 310	3, 356	506	301	399	319
Sodium compunds—								
Borax	40, 551	33, 742	33, 888	28, 610	1, 607	1, 601	1, 528	1, 257
Soda ash	29, 024	28, 683	32, 380	39, 533	730	683	775	936
Caustic soda	114, 684	92, 116	100, 955	103, 295	3, 827	2, 863	2, 996	3, 112
Other compounds	216, 031	160, 990	188, 122	174, 600	3, 765	3, 357	3, 054	3, 122
All other industrial chemicals	104, 377	101, 438	104, 059	127, 617	10, 541	10, 969	12, 591	15, 228
Pigments, paints, and varnishes—								
Mineral earth pigments	28, 584	28, 207	31, 265	31, 955	999	824	903	1, 006
Chemical pigments—								
Carbon, bone, and lamp-blacks	32, 039	36, 401	46, 988	42, 739	4, 905	3, 509	3, 805	3, 863
Other chemical pigments	33, 605	26, 845	46, 077	52, 808	2, 762	2, 389	3, 873	4, 120
Paints, stains, and enamels	--------	--------	--------	--------	6, 253	5, 998	7, 904	7, 857
Varnishes (gallons)	966	936	1, 107	1, 108	1, 632	1, 607	2, 025	2, 040
Fertilizers and materials—								
Sulphate of ammonia (tons)	154	118	123	181	11, 118	6, 919	6, 749	9, 824
Phosphate rock (tons)	828	819	870	749	5, 772	5, 121	5, 678	4, 440
Other (tons)	118	131	149	173	3, 904	4, 469	4, 872	5, 776
Explosives and fuses—								
Smokeless powder	1, 697	292	1, 128	614	567	136	621	453
Dynamite	16, 983	15, 160	16, 986	16, 221	2, 483	2, 201	2, 444	2, 331
All other	--------	--------	--------	--------	1, 360	1, 358	1, 626	1, 439
Soap and toilet preparations—								
Soap—								
Toilet or fancy	7, 370	5, 376	6, 761	8, 975	3, 022	2, 401	2, 805	3, 038
Laundry	66, 498	54, 276	55, 806	60, 758	4, 701	3, 814	4, 009	4, 120
Other soap	18, 456	17, 724	13, 098	13, 625	1, 583	1, 518	1, 222	1, 245
Perfumery and toilet waters	656	400	--------	--------	562	410	451	391
Talcum, other toilet powders	3, 814	3, 229	3, 469	3, 289	1, 672	1, 688	1, 882	1, 727
Creams, rouges, and cosmetics	2, 149	2, 267	2, 535	2, 921	1, 094	1, 187	1, 331	1, 624
Other toilet preparations	4, 833	4, 664	5, 150	5, 370	3, 551	3, 968	4, 419	4, 662
Related products from other groups	--------	--------	--------	--------	**42, 106**	**43, 860**	**53, 436**	**58, 480**
Naval stores, gums, and resins—								
Rosin (barrels)[1]	1, 205	1, 452	1, 172	1, 094	11, 058	13, 755	18, 889	24, 633
Spirits of turpentine (galls.)	11, 478	11, 510	11, 557	11, 587	12, 304	10, 105	11, 346	10, 636
Other gums, etc	--------	--------	--------	--------	1, 458	1, 449	1, 575	1, 595
Crude drugs and botanicals	6, 110	7, 890	5, 881	5, 102	3, 543	4, 040	2, 961	3, 578
Essential oils	761	1, 275	1, 389	3, 135	1, 012	1, 675	1, 673	1, 695
Linseed oil	3, 013	2, 387	2, 487	2, 567	408	318	355	251
Sulphur (tons)	473	482	632	582	7, 216	7, 894	11, 154	11, 155
Pyroxylin in sheets, rods, tubes	1, 940	2, 004	2, 464	2, 345	2, 347	2, 017	2, 087	1, 733
Manufactures of	638	789	1, 940	2, 198	922	1, 045	1, 924	2, 085
Matches	1, 264	966	833	583	225	187	160	103
All other [2]	14, 307	11, 377	11, 255	7, 271	1, 613	1, 375	1, 312	1, 016

[1] Barrel of 500 pounds. [2] Includes bones, gelatin, glue, and natural dyes, also beeswax in 1923 and 1924.

Source: Bureau of Foreign and Domestic Commerce.

Crude drugs and essential oils.—The high prices of crude drugs had an important effect on the exports of this group. Ginseng sales picked up considerably both in quantity and value, but the prices were so much higher in 1926 than in 1925 that the rate of increase in value was 58 per cent, while the quantity increased only 31 per cent. China is the only important consumer of this drug, and the bulk of the shipments is sent direct to Hong Kong. The price of peppermint oil, which had a phenomenal rise in 1925, declined in 1926. The quantity shipped abroad was about the same as in 1925. The "all other essential oils" class, comprising cedar-wood oil as the most important commodity, and sassafras, wintergreen, spearmint, and pine oils, was in much stronger demand in 1926, with more than double the quantities sold abroad. Canada and England were the best markets.

Imports by Classes.

Coal-tar chemicals.—In spite of the recent large development of coal-tar products in this country, imports of certain classes are still important. The aggregate value in 1926 was nearly 40 per cent greater than the pre-war average, although 4 per cent below the 1925 figure. Approximately 60 per cent of the coal-tar products group is composed of creosote oil used largely as a wood preservative. England, Belgium, and the Netherlands are the principal suppliers of this oil. Dyes, colors, and stains, the other important class of the group, registered a rather marked reduction—22 per cent in value and 14 per cent in quantity. The dye imports are largely of the higher-priced variety; during 1926 the price of many of them was lowered. Imports from Germany were reduced one-third, to $2,323,000, while Switzerland, second in importance and a close competitor to Germany, shipped only 4 per cent less, or $2,171,000. A larger amount was imported from France and England in 1926 than in 1925.

Medicinal and pharmaceutical preparations.—Imports of this group improved 3 per cent in 1926; menthol, the outstanding commodity, is being imported in larger quantities and at lower prices. Japan furnishes the bulk of this commodity, although some synthetic menthol is received from European countries. Most of the quinine imported comes from Java through the Netherlands and Japan.

Industrial chemicals.—Certain industrial chemicals, largely for further elaboration by the American chemical industry are imported in large amounts either because of no domestic production or because domestic production is insufficient for the demand of the American industry, as in the case of glycerin. Imports of industrial chemicals were one-quarter more than in 1925 and one-tenth more than before the war. However, the increase was confined largely to two commodities—crude iodine, which is imported from Chile, and glycerin, which originates in the European manufacturing countries.

Most of the industrial chemicals imported are of European origin, although Canada participated to a greater extent in this trade during 1926, having shipped rather large amounts of arsenious acid, sulphuric acid, sodium cyanide, calcium carbide, and cobalt oxide. Receipts of industrial chemicals from Belgium and the Netherlands were larger in 1926 than in previous years. As in 1925, there was a continued increase in imports of synthetic methanol from Germany.

Pigments, paints, and varnishes.—Imports of this group are comparatively small, iron oxide pigments coming from Spain and the United Kingdom; ochers and siennas from France; zinc pigments from Netherlands, Belgium, and Germany; and paints from Germany, Czechoslovakia, and the United Kingdom.

Fertilizers and materials.—Imports of fertilizers and materials were 70 per cent greater in value than before the war but 11 per cent less than in 1925. Imports of sodium nitrate, the largest single item, decreased nearly one-fifth from the 1925 figure but were over twice as large as in pre-war years. Although in 1926 larger quantities of synthetic nitrogen were received from European sources, especially Germany and Norway, in the form of calcium nitrate and ammonium sulphate-nitrate, the increase did not offset the loss in sodium nitrate, the bulk of which comes from Chile. Other important changes in 1926 as compared with 1925 were the 10 per cent loss in calcium cyanamid, the bulk of which was supplied by Canada, and the 19 per cent gain in muriate of potash, from Germany, France, and Belgium. Ammonium-sulphate imports in 1926 were exceptionally small.

Soap and toilet preparations.—In comparison with the exports, imports of soap are unimportant. The value of imports of perfumery and toilet preparations was more than three times as great as before the war, partly by reason of the large increase in consumption of finished articles of this group and partly on account of the growth of the domestic industry which requires partly finished materials from abroad. However, in 1926 imports were 10 per cent less than the large receipts of 1925. France is the outstanding factor in this trade. Perfume materials for use of American manufacturers make up half of the trade of this group.

Gums, resins, balsams, and oils.—The increasing use of paints and varnishes in this country has led to greater importation of varnish gums and of Chinese wood oil which is particularly used for varnishes. Imports of lac (chiefly from India) were considerably greater in 1926, but owing to a decided fall in prices, values only increased 3 per cent. Imports of damar from Java and British Malaya, kauri from New Zealand, and other varnish gums from British India, Siam, Philippine

Table 8.—Chemicals: Imports of Principal Products

[All figures for quantity are reported in thousands, the unit being the pound except as otherwise specified]

Article	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Grand total, value	-----	-----	-----	-----	**211, 772**	**185, 350**	**207, 820**	**210, 326**
Chemicals and allied products (Group 8)	-----	-----	-----	-----	**121, 626**	**120, 031**	**138, 340**	**134, 735**
Coal-tar chemicals—								
Crudes	-----	-----	-----	-----	11, 534	14, 366	12, 026	13, 072
Intermediates	2, 679	4, 107	2, 577	1, 510	608	807	1, 098	775
Dyes, colors, stains	3, 290	3, 440	5, 785	4, 973	4, 461	4, 462	7, 166	5, 601
Other finished products	-----	256	169	115	671	484	367	358
Medicinal and pharmaceutical preparations	-----	-----	-----	-----	5, 444	4, 777	5, 730	5, 891
Industrial chemicals—								
Acids and anhydrides—								
White arsenic	20, 305	17, 704	18, 631	15, 418	1, 985	1, 591	1, 076	511
Sulphuric	23, 508	15, 249	36, 383	55, 937	198	131	242	338
Tartaric	2, 654	2, 987	3, 580	1, 565	642	617	702	330
Other	9, 023	8, 482	11, 598	16, 894	919	864	1, 100	1, 271
Ammonium compounds—								
Nitrate	19, 916	3, 748	10, 872	8, 344	1, 298	209	542	383
Other compounds	9, 043	11, 728	13, 021	16, 973	467	532	553	682
Barium compounds	7, 955	14, 050	20, 112	24, 477	299	354	298	314
Calcium carbide	-----	15, 525	14, 241	21, 845	-----	587	515	847
Cobalt oxide	259	227	287	333	512	441	546	632
Citrate of lime	1, 673	2, 505	3, 431	3, 371	200	257	343	339
Glycerin	15, 143	15, 928	21, 292	38, 444	1, 508	1, 729	2, 541	6, 327
Iodine, crude	273	-----	246	711	887	-----	890	2, 272
Potassium compounds—								
Hydroxide	10, 857	12, 657	12, 257	12, 914	687	700	734	767
Bitartrate, crude	19, 804	16, 744	24, 666	25, 625	1, 512	1, 094	1, 690	1, 794
Other compounds	42, 519	26, 094	51, 430	56, 924	2, 688	1, 453	2, 167	2, 203
Sodium compounds—								
Cyanide	29, 646	29, 737	30, 212	31, 804	2, 435	2, 658	2, 600	2, 558
Other compounds	-----	-----	-----	-----	1, 803	1, 050	920	1, 437
Other industrial chemicals	-----	-----	-----	-----	6, 409	3, 959	4, 950	5, 210
Pigments, paints, and varnishes	-----	-----	-----	-----	3, 307	2, 823	3, 235	3, 859
Fertilizer and materials—								
Nitrogeneous—								
Sodium nitrate (tons)	892	987	1, 112	914	41, 956	47, 169	52, 531	42, 781
Other nitrogeneous (tons)	198	191	260	230	8, 107	7, 297	10, 621	9, 918
Phosphates (tons)	67	45	36	69	1, 883	964	914	1, 662
Potash—								
Chloride, crude (tons)	135	129	161	199	4, 116	3, 972	5, 194	6, 196
Sulphate, crude (tons)	64	76	69	70	2, 593	2, 857	2, 686	2, 823
Manure salts (tons)	269	226	384	316	2, 940	2, 218	3, 677	3, 391
Other potash (tons)	197	201	206	230	1, 369	1, 393	1, 494	1, 723
Other fertilizers (tons)	36	38	39	54	949	660	956	755
Explosives	-----	-----	-----	-----	876	958	1, 104	1, 165
Soap and toilet preparations—								
Soap	5, 337	4, 872	5, 492	6, 331	725	760	921	973
Perfumery and toilet waters	1, 458	1, 424	1, 418	1, 486	2, 457	2, 200	2, 092	2, 138
Perfume materials	-----	-----	-----	-----	2, 470	2, 905	3, 388	2, 799
Cosmetics, powders, creams, etc	1, 349	1, 060	1, 155	1, 196	711	731	734	641
Related products from other groups	-----	-----	-----	-----	**90, 146**	**65, 319**	**69, 480**	**75, 591**
Naval stores, gums, and resins—								
Varnish gums and resins—								
Damar	11, 484	9, 626	12, 697	15, 156	1, 482	1, 088	1, 569	2, 280
Shellac	38, 447	24, 553	19, 913	31, 296	22, 955	13, 139	10, 164	10, 515
Other	45, 711	33, 691	41, 672	56, 800	5, 980	5, 116	6, 670	7, 515
Tar, pitch, and turpentine	-----	-----	-----	-----	170	152	277	517
Camphor—								
Natural, crude	3, 486	1, 848	2, 369	2, 019	2, 214	999	1, 301	1, 158
Refined	4, 002	2, 862	1, 584	1, 170	2, 881	1, 781	953	763
Synthetic			1, 835	2, 944			921	1, 558
Chicle	8, 327	7, 919	12, 145	12, 381	4, 124	3, 971	5, 986	6, 204
Balsams, crude	368	301	500	325	193	203	261	181
Gums and resins, n. e. s.—								
Arabic	9, 858	7, 307	7, 256	10, 268	1, 240	762	783	1, 002
Other	16, 367	8, 428	18, 197	22, 103	1, 963	1, 051	1, 866	2, 354
Crude drugs and botanicals—								
Cinchona bark	2, 817	2, 396	2, 917	3, 906	779	706	906	1, 056
Pyrethrum flowers	2, 974	3, 945	6, 435	9, 853	1, 398	1, 604	1, 237	1, 219
Licorice root	64, 825	65, 164	77, 827	82, 015	2, 360	1, 890	1, 852	2, 375
Other	30, 743	24, 857	24, 689	27, 893	4, 190	3, 702	3, 940	4, 571

Table 8.—**Chemicals: Imports of Principal Products**—Continued

Article	Quantity (thousands of units specified)				Value (thousands of dollars)			
	1923	1924	1925	1926	1923	1924	1925	1926
Related products from other groups—Continued.								
Essential and distilled oils					5, 565	5, 528	6, 345	6, 573
Linseed oil	43, 097	13, 247	13, 607	15, 041	4, 214	1, 067	1, 407	1, 033
Chinese wood oil	87, 292	81, 588	101, 554	83, 004	13, 397	11, 092	11, 386	9, 090
Cellophane, collodium, pyroxylyn, etc	1, 323	1, 352	1, 645		1, 832	1, 695	1, 986	2, 864
Matches					1, 511	2, 198	2, 278	2, 163
All other [1]	253, 848	177, 991	186, 389	224, 879	11, 698	7, 575	7, 392	10, 600

[1] Includes bones, gelatin, glue, dyeing materials, casein, and waxes.

Source: Bureau of Foreign and Domestic Commerce.

Islands, and Belgian Congo, were also larger in 1926. In the camphor trade an interesting development is the greater use of synthetic camphor from Germany to replace the natural imported from Japan.

Crude drugs and botanicals.—Imports of crude drugs and botanicals show a slightly higher average unit value in 1926 than in 1925. The increased use of household sprays for combating insects has led to a marked growth in imports of pyrethrum flowers coming chiefly from Japan, Italy, and Jugoslavia. Imports of licorice root, while much larger in 1926 than in the preceding two years, were still decidedly below the pre-war average in quantity; this comes from Asia Minor. Cinchona bark originates in the Netherlands East Indies, but is reshipped from the Netherlands.

Essential oils.—With the growth of the domestic flavoring, medicinal, perfumery, and toilet preparations industries, imports of essential oils have increased and their 1926 value was nearly twice as large as before the war, although only 4 per cent above the 1925 figure. In this group the substitution of the synthetic commodity for the natural and the reduction of prices to meet competition continued to be evident. This was especially true in the case of citronella and lemongrass oils from Java and Ceylon, values of which dropped 30 per cent while quantities were about the same as in 1925. Geranium oil, which like other flower oils comes mainly from France and Algeria, decreased markedly in value, although imported in larger quantities.

Italy supplies the major portion of the imports of citrus oils. In 1926 the import price of lemon oil about doubled that of 1925, notwithstanding the greater activity on the part of domestic producers. American firms are not yet producing in sufficient quantities to supply the increased consumption of the oil by manufacturers of food-flavoring extracts, soft drinks and beverages, pharmaceuticals, and other products.

TRANSPORTATION AND COMMUNICATION

RAILWAY TRANSPORTATION

SUMMARY. Railway freight traffic was greater during 1926 than ever before. Economy and efficiency have marked the operation of the railways since 1922 and were clearly in evidence during the past year. Traffic measured in revenue ton-miles of Class I roads exceeded the previous year by 7.2 per cent. Class I operating revenues in 1926 were 4.2 per cent greater than 1925 and slightly exceeded the revenues in 1923; operating expenses were greater than during the previous year by 2.9 per cent and the net operating income gained by 8.2 per cent. Freight and passenger rates remained practically the same. Traffic moved without delay or interruption with no car shortages and higher car surpluses. Movement of goods was carried on with the greatest rapidity in railroad history. The progressive efficiency in railway operation during the past four years is partly attributable to the hearty cooperation of the buyers of transportation through the medium of the Shippers' Regional Advisory Boards of the American Railway Association. Credit must also be given to the operating officials and their employees for the expedited railway service.

The improvement in financial results of operation shown in 1923–1925 continued throughout 1926. The operating ratio decreased from 77.88 in 1923 to 74.17 in 1925, and to 73.14 per cent in 1926. The net railway operating income of Class I roads in 1926 was 5.7 per cent of the aggregate tentative valuation, December 31, 1925, of the steam railway property of the carriers subject to the transportation act of 1920. This ratio for the southern district was 7.3 per cent; for the western district, 5 per cent; and for the eastern district, 5.8 per cent.

Railroad traffic has shown a much larger growth than that of population since the beginning of the present century. Between 1901 and 1913 both the ton-mileage and the operating revenues of railroads were practically doubled, while there was an even larger relative increase in the operating expenses. Since 1913 there has been a further growth of more than 50 per cent in the volume of traffic while the operating revenues again doubled. In this period also operating expenses showed a larger relative gain than that of revenue, but net railway operating income was about 54 per cent larger in 1926 than in 1913.

Table 1.—Summary of Major Statistics of Railroads

NOTE.—Figures for 1926 do not include the smaller roads (Classes II and III). The percentages of increase over 1925 are computed from data for Class I roads only, as shown in subsequent tables.

Item	1913 [1]	1921	1922	1923	1924	1925	1926 [2]	Per cent change, 1926 from 1925 [3]
Number of miles owned	249, 777	251, 176	250, 413	250, 222	250, 156	249, 398	(4)	--------
Freight originated (million tons)	1, 183	1, 018	1, 112	1, 388	1, 287	1, 351	1, 337	+7. 2
Freight ton-mileage (million ton-miles)	301, 730	309, 533	342, 188	416, 256	391, 945	417, 418	444, 039	+7. 3
Average freight rate per ton per mile (cents)	[5] 0. 729	1. 294	1. 194	1. 132	1. 132	1. 114	1. 082	−1. 5
Operating revenues (million dollars)	[5] 3, 193	5, 633	5, 674	6, 419	6, 045	6, 247	6, 380	+4. 2
Operating expenses (million dollars)	[5] 2, 236	4, 669	4, 510	4, 999	4, 609	4, 633	4, 666	+2. 9
Net railway operating income (million dollars)[6]	[5] 805	601	769	975	984	1, 137	1, 214	+8. 2

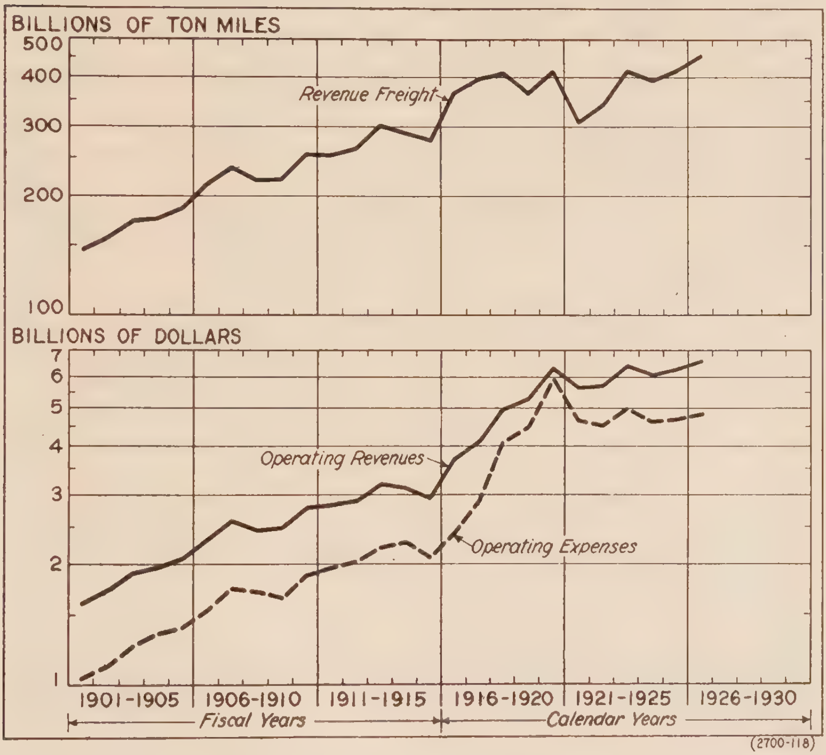
[1] Fiscal year ended June 30; other years ended Dec. 31.
[2] Class I roads, excluding switching and terminal companies.
[3] Percentages based on 1925 and 1926 figures for Class I roads only.
[4] Not available.
[5] Class I and II roads.
[6] See note 2, Table 13.

TRAFFIC

Traffic Program.

During 1926 the concerted effort to handle traffic without delays continued and all requirements for cars were met without car shortages. There was an average daily surplus of never less than 134,000 cars in any quarter, while the percentage of unserviceable equipment was lower than in the three preceding years. As compared with the the ideal goal of reducing unserviceable freight cars to 5 per cent and unserviceable locomotives to 15 per cent, the carriers averaged 7.7 per cent and 17.8 per cent, respectively, during 1925, and 6.5 per cent and 16.6 per cent in 1926.

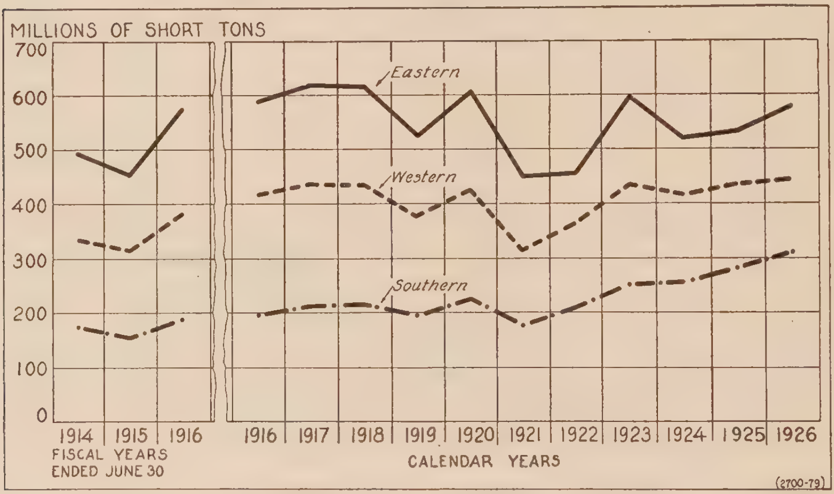
Chart I.—FREIGHT MOVEMENT AND OPERATING REVENUES AND EXPENSES OF RAILWAY COMPANIES



Thirteen shippers' regional advisory boards have been organized by the American Railway Association. These boards, composed of representatives of production, distribution, consumption, and finance, in cooperation with the carriers, are voluntary organizations, each representing a territory which has common business and transportation interests. Their purpose is to promote the economic and transportation welfare in each territory, assisting the railroads, individually and collectively. Each of the regional boards is organized by commodity groups to the end that the various business interests in each section may be adequately represented. A great part of the increased efficiency in railway operation has resulted from the cooperation of the shippers and receivers of freight and other groups associated with transportation.

Railway operating efficiency, resulting in rapid and reliable delivery of freight, has been an important factor in the reduction of inventories and the speeding up of business generally. Where two to three weeks were required for delivery of merchandise just after the war, reliable delivery is made to-day upon a week to 10-day schedule. The quicker loading and unloading of equipment have aided greatly in the more efficient use of railway facilities. The quarterly prognostications of car requirements obtained from the regional advisory board members have enabled the railroads to determine the kind and amount of equipment necessary for the carriage of seasonal and regularly moving freight.

Chart II.—REVENUE FREIGHT ORIGINATING, BY DISTRICTS (CLASS I ROADS)



During 1926 the average daily movement for freight cars was 30.4 miles, greater by 7.4 per cent than in 1925, and 13.4 per cent greater than in 1924. In October the average was 34.3 miles per day, 6.5 per cent greater than during the best previous month, October, 1925. The idle cars, serviceable and unserviceable, are included in the data on which these averages are based, so the actual mileage of the freight cars in use is greater than indicated. A high average in this item during a period with high car surplusages is thus indicative of even greater efficiency of operation than the figures show.

Table 2.—Mileage and Traffic of Railways

NOTE.—Data for all roads for 1926 not yet available, but Class I roads handle the great bulk of the business. Per capita figures are based on total population of United States.

Yearly average or year ended—	Number of miles owned	Revenue freight					Revenue passengers		
		Ton-miles		Average tons per loaded car	Average tons per train	Revenue per ton-mile (cents)	Passenger-miles		Revenue per passenger-mile (cents)
		Millions	Per capita				Millions	Per capita	
June 30:									
1891-1895 [1]	[1] 163, 597	85, 693	1, 280	(2)	184	0. 886	13, 383	200	2. 10
1896-1900 [3]	[3] 180, 657	113, 962	1, 551	(2)	229	. 772	13, 863	189	2. 02
1901-1905	207, 938	167, 715	2, 071	17. 4	304	. 774	20, 737	256	2. 01
1906-1910	232, 982	228, 936	2, 570	19. 5	359	. 762	28, 683	322	1. 98
1900	193, 346	141, 597	1, 859	(2)	271	. 729	16, 038	211	2. 00
1905	218, 101	186, 463	2, 214	18. 1	322	. 766	23, 800	283	1. 96
1911	243, 979	253, 784	2, 709	19. 7	383	. 757	33, 202	354	1. 97
1912	246, 777	264, 081	2, 777	20. 2	407	. 744	33, 132	348	1. 99
1913	249, 777	301, 730	3, 126	[4] 21. 1	[4] 445	[4] . 729	34, 673	359	[4] 2. 01
1914	252, 105	288, 637	2, 947	21. 1	447	. 737	35, 357	361	1. 99
1915	253, 789	277, 135	2, 790	21. 1	476	. 735	32, 475	327	1. 99
Dec. 31:									
1916	254, 037	366, 173	3, 634	22. 8	552	. 719	35, 220	350	2. 05
1917	253, 626	398, 263	3, 898	24. 8	588	. 728	40, 100	392	2. 10
1918	253, 529	408, 778	3, 946	27. 0	621	. 862	43, 212	417	2. 42
1919	253, 152	367, 161	3, 497	25. 4	623	. 987	46, 838	446	2. 55
1920	252, 845	413, 699	3, 887	26. 7	639	1. 069	47, 370	445	2. 76
1921	251, 176	309, 533	2, 854	24. 6	567	1. 294	37, 706	349	3. 09
1922	250, 413	342, 188	3, 114	24. 3	599	1. 194	35, 811	326	3. 04
1923	250, 222	416, 256	3, 727	25. 2	632	1. 132	38, 294	343	3. 03
1924	250, 156	391, 945	3, 446	24. 5	634	1. 132	36, 368	320	2. 99
1925	249, 398	417, 418	3, 618	24. 6	663	1. 114	36, 167	313	2. 94
1926 [5]	(2)	444, 039	3, 944	(2)	(2)	1. 083	35, 487	303	2. 94

[1] Mileage in 1890.
[2] Not available.
[3] Mileage in 1895.
[4] Class I and II roads.
[5] Class I roads.

Source: Interstate Commerce Commission.

Revenue Freight Tonnage.

Tons of revenue freight originating in 1926 were 7.2 per cent greater than in 1925 (Class I roads) and over 4.5 per cent more than during the previous peak year, 1923. The increase of 1926 over 1925 in the eastern and western districts amounted to 9.2 per cent and 2.6 per cent, respectively, and in the southern district to 10.4 per cent. The relative importance of the three districts has not changed greatly during the 12-year period covered by Table 3, although in recent years there has been some gain in the southern district at the expense of the eastern.

Ton-miles of revenue freight carried by Class I roads in 1926 totaled 444,039,000,000, as compared with 413,814,000,000 in the previous year, or an increase of 7.3 per cent. This performance represents over 49 per cent more ton-miles than were carried in 1913 (fiscal year) and is greater by 14.3 per cent than in 1924.

Table 3.—Freight Traffic of Class I Railways,[1] by Districts

Year	Revenue freight originated (thousands of tons)				Ton-miles of revenue freight (millions)			
	Total	Eastern	Southern	Western	Total	Eastern	Southern	Western
1914 [2]	1, 008, 460	496, 101	174, 319	338, 040	284, 925	143, 116	49, 524	92, 285
1915 [2]	923, 428	453, 741	154, 482	315, 205	273, 913	135, 643	47, 325	90, 945
1916	1, 203, 367	590, 301	196, 392	416, 674	362, 444	177, 487	61, 706	123, 251
1917	1, 264, 016	617, 844	211, 475	434, 697	394, 465	187, 966	68, 371	138, 128
1918	1, 263, 344	614, 704	216, 082	432, 558	405, 379	190, 943	72, 101	142, 335
1919	1, 096, 111	523, 811	194, 564	377, 737	364, 293	170, 118	64, 000	130, 176
1920	1, 255, 421	606, 786	224, 127	424, 508	410, 306	188, 518	76, 925	144, 863
1921	940, 183	449, 674	177, 258	313, 250	306, 840	138, 503	59, 679	108, 658
1922	1, 023, 745	452, 238	208, 589	362, 919	339, 285	151, 210	69, 565	118, 511
1923	1, 279, 030	597, 892	249, 638	431, 500	412, 727	193, 988	81, 705	137, 034
1924	1, 187, 296	519, 595	252, 888	414, 813	388, 415	170, 039	82, 351	136, 025
1925	1, 247, 242	531, 309	281, 715	434, 218	413, 814	179, 484	91, 934	142, 396
1926	1, 336, 528	580, 274	310, 897	445, 357	444, 039	193, 928	101, 543	148, 568
Per cent change from 1925	+7. 2	+9. 2	+10. 4	+2. 6	+7. 3	+8. 0	+10. 5	+4. 3

[1] Includes all roads with an annual operating revenue exceeding $1,000,000; these account for about 93 per cent of the number of tons originated and 99 per cent of the ton-mileage.

[2] Year ended June 30; excludes some unassigned originating freight.

Source: Interstate Commerce Commission.

While both tons of freight originating and ton-miles are excellent indexes of railway traffic, neither presents an entirely accurate picture. Statistics of tons originating somewhat understate the increase in volume of freight handled, since they do not take into consideration changes in the average length of haul, which has increased since prewar years. On the other hand, an increase or decrease in the number of ton-miles does not necessarily represent a proportional change in the transportation burden imposed upon the railways. Neither the revenue nor the expense of handling a shipment 200 miles is twice as much as for hauling it 100 miles.

Revenue freight originating increased steadily during 1926 for the United States as a whole, exceeding the 1925 figures in every quarter, practically equaling the previous peak year, 1923, in the first two quarters and exceeding it by a large margin during the last two quarters. Every district showed an increase over 1925 in all quarters, except for a slight decrease in the eastern and western districts in the first quarter.

Table 4.—Revenue Freight Originating, Class I Railways, by Quarters

[In thousands of tons]

Quarter ended—	United States				Eastern district		Southern district		Western district	
	1923	1924	1925	1926	1925	1926	1925	1926	1925	1926
Mar. 31	284, 253	276, 352	273, 464	280, 000	124, 091	122, 627	64. 406	73, 524	84, 967	83, 849
June 30	326, 660	277, 242	303, 785	323, 504	131, 796	142, 492	66, 055	74, 425	105, 934	106, 587
Sept. 30	347, 323	312, 378	345, 765	371, 543	143, 695	155, 070	74, 828	79, 916	127, 242	136, 557
Dec. 31	319, 249	320, 490	323, 779	360, 647	131, 764	159. 252	76, 332	83, 031	115, 683	118, 364

Source: Interstate Commerce Commission.

Total revenue freight carried on Class I railways, including duplications of tonnage received by one line from another, attained since 1914, attaining a peak in 1923 of 2,334,000,000 tons. The 1926 total was 2,453,000,000 tons, which exceeded the 1923 figure by 5.1 per cent. Revenue freight originating in the western district during 1926 was approximately two-thirds of the total revenue freight carried in that district, the corresponding rates being two-fifths in the eastern district, and three-fourths in the southern district.

Table 5.—Revenue Freight Carried in Each District, Class I Railways

[In thousands of tons. Figures include freight received by each line from other lines]

Year	Total	Eastern	Southern	Western
June 30, 1914	1, 780, 217	1, 105, 437	256, 516	481, 264
1915	1, 684, 659	1, 003. 358	231, 971	449, 330
Dec. 31, 1916	2, 179, 697	1, 283, 711	298, 063	597, 923
1917	2, 270, 035	1, 302, 098	326. 115	641, 822
1918	2, 307, 226	1, 317, 918	341, 295	648, 013
1919	2, 044, 392	1, 156, 365	306, 279	581, 748
1920	2, 259, 983	1, 253, 468	348, 533	657, 982
1921	1, 690, 763	934, 694	266, 413	489, 656
1922	1, 840, 955	975, 691	314, 370	550, 894
1923	2, 333, 601	1, 295, 112	381, 376	657, 113
1924	2, 171, 719	1, 146, 945	382 712	642, 062
1925	2, 304, 275	1, 208. 296	423, 769	672, 210
1926	2, 452, 786	1, 309, 241	448, 690	694. 855

Source: Interstate Commerce Commission.

The ton-mileage of revenue freight carried by Class I railways during each month of 1926 exceeded that of the corresponding month of 1925. With the exception of the months of January, April, and May, ton-miles during each month of 1926 exceeeded the previous peak year of 1923. The eastern district had the largest actual increase, 1926 over 1925, but showed a relative increase of only 8 per cent, while the southern and western showed increases of 10.5 per cent and 4.3 per cent, respectively. (Table 6.)

Revenue Freight Originating, by Commodities.

The character of the freight traffic handled by the railroads is shown in Table 7. Products of mines have made up well over one-half of the freight originating in each year, amounting to 56.7 per cent in 1926, as compared with 54.4 per cent in 1925 and with 56.1 per cent in 1913. Since 1913 the volume of agricultural products handled has been over 100,000,000 tons annually (not counting livestock) and has varied comparatively little. There has been a marked increase in the tonnage of manufactures and miscellaneous traffic (in car lots) since pre-war years. The volume of products of mines and of manufactures loaded during 1926 was greater than during 1925 and exceeded 1923, the previous high record year. Loadings of forest products have declined in each year since 1923, the total decrease amounting to 9.3 per cent.

Table 6.—Ton-Miles of Revenue Freight Carried by Class I Railways, by Months

[In millions of ton-miles]

Month	All roads						
	1920	1921	1922	1923	1924	1925	1926
January	32, 016	26, 627	23, 742	34, 020	30, 614	33, 119	33, 614
February	30, 291	22, 200	25, 453	29, 464	32, 135	30, 557	31, 871
March	32, 910	24, 232	29, 468	35, 302	32, 970	31, 915	35, 350
April	27, 324	23, 084	22, 290	34, 794	29, 092	30, 353	32, 935
May	32, 918	25, 252	25, 064	35, 994	30, 522	33, 164	35, 707
June	35, 047	25, 442	26, 477	34, 234	28, 759	32, 784	35, 713
July	37, 076	25, 397	24, 686	34, 519	29, 925	34, 470	37, 918
August	39, 185	27, 529	27, 881	36, 203	32, 626	37, 670	39, 739
September	37, 867	27, 849	31, 674	35, 440	35, 449	37, 987	40, 645
October	39, 101	32, 622	36, 010	38, 285	39, 266	40, 369	43, 898
November	34, 677	26, 853	34, 719	34, 687	34, 757	37, 242	40, 354
December	31, 613	23, 260	32, 810	30, 594	33, 053	34, 906	36, 644

Month	Eastern district			Southern district			Western district		
	1924	1925	1926	1924	1925	1926	1924	1925	1926
January	13, 844	14, 462	14, 481	6, 625	7, 301	8, 170	10, 145	11, 356	10, 963
February	14, 857	13, 863	14, 159	6, 919	6, 771	7, 681	10, 359	9, 923	10, 031
March	15, 478	14, 265	15, 951	7, 109	7, 107	8, 326	10, 383	10, 543	11, 073
April	12, 806	13, 523	14, 673	6, 410	6, 855	7, 601	9, 876	9, 975	10, 661
May	13, 912	14, 926	15, 978	6, 390	7, 492	8, 229	10, 220	10, 746	11, 500
June	12, 839	14, 454	15, 760	6, 125	7, 317	8, 188	9, 795	11, 013	11, 765
July	13, 098	15, 129	16, 122	6, 209	7, 710	8, 717	10, 618	11, 631	13, 079
August	13, 773	16, 602	16, 971	6, 811	8, 247	8, 756	12, 042	12, 821	14, 012
September	14, 759	15, 417	17, 145	6, 915	8, 314	8, 785	13, 775	14, 256	14, 715
October	16, 424	16, 575	18, 825	7, 688	8, 687	9, 440	15, 154	15, 107	15, 633
November	14, 766	15, 902	17, 826	7, 426	8, 247	9, 036	12, 565	13, 093	13, 492
December	14, 118	15, 014	16, 353	7, 782	8, 075	8, 507	11, 153	11, 817	11, 784

Source: Interstate Commerce Commission.

Chart III.—TON-MILES OF REVENUE FREIGHT (CLASS I ROADS)

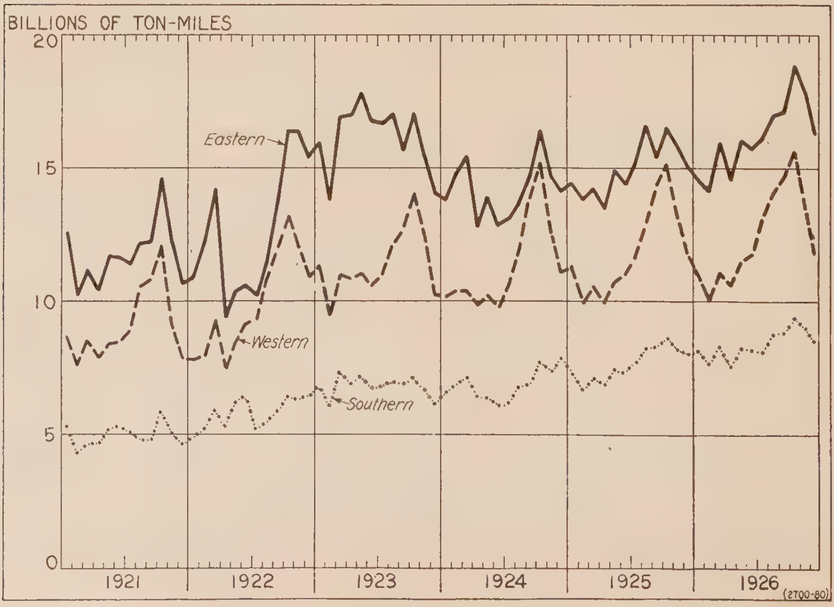


Table 7.—Revenue Freight Originating on Railways, by Commodity Groups

[In thousands of tons]

Year ended—	Total[1]	Products of agriculture	Animals and products	Products of mines		Products of forests	Manufactures and miscellaneous	Merchandise (less than car lots)
				Coal	All other			
CLASS I AND II ROADS								
June 30, 1911	981, 293	84, 478	23, 611	335, 685	195, 907	97, 427	172, 554	36, 293
1912	1, 011, 784	89, 688	24, 799	352, 770	206, 371	91, 359	176, 266	38, 118
1913	1, 160, 863	106, 067	26, 446	390, 701	260, 239	112, 079	206, 787	42, 520
1914	1, 109, 271	102, 200	27, 139	383, 882	242, 194	110, 878	186, 358	41, 474
1915	1, 005, 029	113, 040	26, 660	348, 139	208, 443	93, 971	163, 988	48, 163
Dec. 31, 1916	1, 293, 091	116, 867	31, 294	422, 853	314, 298	111, 850	239, 849	54, 420
CLASS I ROADS								
Dec. 31, 1916	1, 203, 367	113, 635	30, 473	392, 499	287, 624	93, 819	231, 038	52, 911
1917	1, 264, 016	104, 629	31, 858	443, 722	288, 931	100, 838	240, 269	53, 769
1918	1, 263, 344	116, 051	35, 777	466, 483	268, 313	97, 256	226, 077	53, 387
1919	1, 096, 111	115, 033	35, 494	375, 022	214, 929	94, 076	210, 256	51, 302
1920	1, 255, 421	110, 840	26, 595	462, 449	249, 705	100, 766	251, 864	53, 202
1921	940, 183	114, 069	24, 263	365, 850	145, 420	76, 419	172, 169	41, 992
1922	1, 023, 745	111, 787	26, 230	336, 438	196, 560	89, 059	220, 442	43, 229
1923	1, 279, 030	109, 318	28, 254	443, 983	269, 752	115, 618	267, 767	44, 338
1924	1, 187, 296	116, 587	27, 747	396, 475	241, 107	108, 094	256, 737	40, 549
1925	1, 247, 242	109, 313	26, 324	404, 606	273, 730	107, 391	285, 291	40, 587
1926	1, 336, 528	111, 787	26, 244	465, 100	292, 964	104, 859	296, 076	39, 498
Per cent change 1926 from 1925	+7. 2	+2. 3	—. 3	+15. 0	+7. 0	—2. 4	+3. 8	—2. 7

[1] Down to 1916, inclusive, undistributed freight, as follows, is included in total but not shown elsewhere: 1911, 35,338 tons; 1912, 32,414; 1913, 16,022; 1914, 15,147; 1915, 2,625; 1916, 1,660; 1916, Class I, 1,367.

Source: Interstate Commerce Commission.

Car Loadings—Surpluses and Shortages.

The total number of cars loaded (revenue freight) during 1926 was 53,309,000, greater than in 1925 by 4.1 per cent, and was the greatest in the history of the railroads. During the third quarter of the year, car loadings exceeded those of any previous quarter, while loadings the last quarter were only slightly smaller and surpassed the highest quarter of any previous year. In Table 8 average weekly car loadings are shown by quarters, the original statistics being based on weeks rather than on months to avoid the effect of the varying lengths of the months.

Car shortages were practically nil during the year 1926, except for the last quarter, during which there was a very slight shortage of certain classes of equipment. Although figures of car surpluses and shortages are not entirely satisfactory as an index to the carriers' capacity to take care of traffic requirements, they present at the same time an approximate picture of the situation. Frequently shippers order more cars than are needed during a period of shortage in the hope of thus getting their minimum requirements. This causes an overstatement of deficiency in equipment. Both surpluses and shortages are reported as aggregates, for the same days, owing to the fact that there may be a shortage in one region, while there is a surplus in another, because of differences in seasonal factors affecting agricultural produce.

Chart IV.- **CAR LOADINGS, SURPLUSES, AND SHORTAGES OF CARS, BY QUARTERS (CLASS I ROADS)**

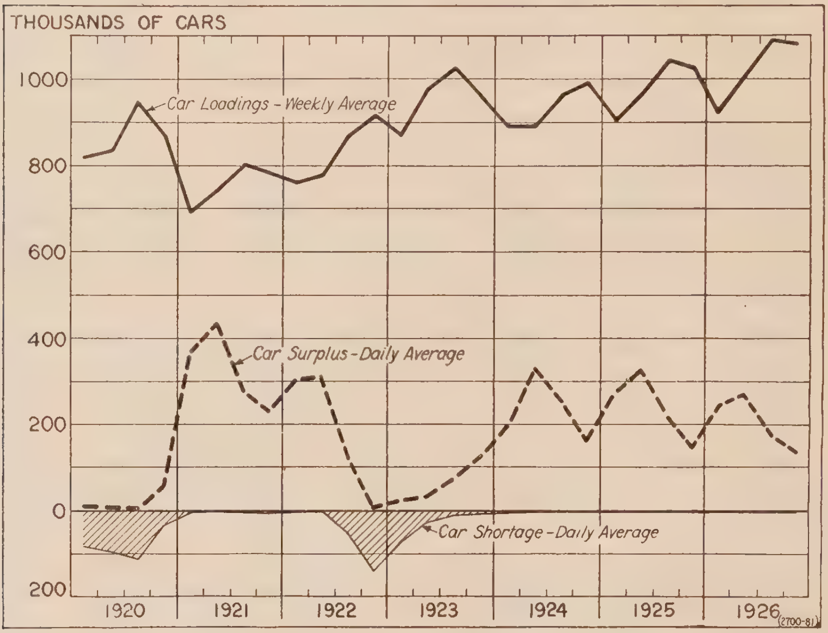


Table 8.—Revenue Car Loadings and Surpluses and Shortages of Cars of Class I Railways, by Quarters

Period	1920	1921	1922	1923	1924	1925	1926
Average weekly loadings:							
January–March	817, 186	693, 533	761, 626	870, 518	891, 385	905, 018	921, 968
April–June	834, 485	743, 845	778, 395	976, 059	892, 088	964, 030	1, 003, 913
July–September	947, 449	803, 787	868, 218	1, 022, 903	962, 830	1. 042, 253	1, 092, 748
October–December	871, 531	783, 693	915, 420	962, 221	987, 115	1, 025, 464	1, 081, 365
Average daily surpluses:							
January–March	8, 027	370, 195	301, 000	20, 568	196, 469	265, 078	242, 091
April–June	4, 250	436, 206	309, 668	29, 923	332, 097	327, 368	269, 484
July–September	2, 067	278, 712	118, 271	69, 664	255, 729	216, 150	174, 243
October–December	53, 966	230, 032	6, 468	120, 104	161, 501	148, 762	134, 354
Average daily shortages:							
January–March	81, 280	781	504	73, 975	3, 096	260	133
April–June	96, 057	301	1, 519	27, 019	197	58	32
July–September	113, 212	1, 835	51, 000	9, 735	237	444	199
October–December	35, 820	2, 898	138, 504	6, 136	649	1, 123	778

Source: American Railway Association.

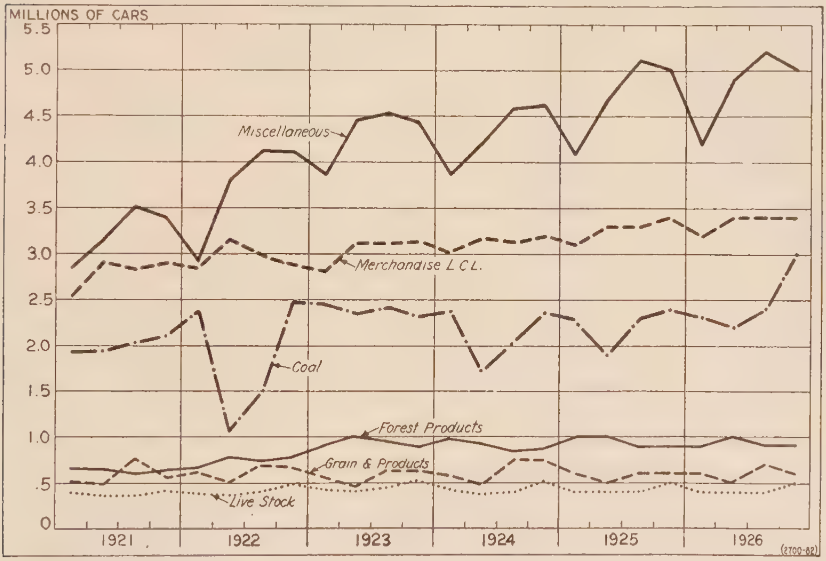
The fact that 1921 showed very little shortage of equipment was owing to lack of demand for cars because of business depression. On the other hand, the adequacy of car supply in the last four years, and more especially in 1926, in the face of heavy traffic, was owing not only to better management and the ownership of larger and better cars by the carriers, but also to the cooperation of the buyers of rail transportation in giving the railroads, 90 days in advance, an estimate of the amount and kind of equipment that would be required.

Although car loadings during every quarter of 1926 exceeded those of the corresponding period of 1925, large surpluses of equipment were maintained in every quarter; and even during the last quarter, daily surpluses of cars averaged 134,000. Traffic was handled most satisfactorily, with a mimimum of delay or interruption.

Car Loadings, by Commodities.

The figures of car loadings, by quarters, for major commodities show certain fairly regular seasonal fluctuations. (Table 9.) The improved service of the carriers has resulted generally in more seasonal loadings because of lessening of stocks carried. Grain and grain products normally move in greater volume during the last half than the first half of the year. Forest products show little change in 1925 and 1926, shipments being slightly greater during the first six months. A heavier movement of coal occurred in 1926 than in 1925. The ore shipments fluctuated as usual, the heaviest movement coming in the third quarter.

Chart V. CAR LOADINGS OF PRINCIPAL COMMODITY GROUPS, BY QUARTERS (CLASS I ROADS)



The further increase of 1926 over 1925 for merchandise less than carloads and for miscellaneous shipments show continued quick-order buying as a result of fast and efficient delivery by the carrier. As compared with 1921, when the service was much slower and not so dependable, total car loadings in 1926 were greater by about 14,000,000 cars, merchandise (less than carloads) loadings increased nearly 2,500,000, and miscellaneous loadings over 6,500,000 during this period.

Table 9.—Car Loadings (Revenue Freight), by Commodity Groups, Class I Railways

[In thousands of carloads]

Period	Total	Grain and products	Live-stock	Forest products	Coal	Coke	Ore	Merchandise less than car lots	Miscellaneous
1920	45,118	1,843	1,553	3,058	10,082	648	2,410	9,013	16,511
1921	39,323	2,293	1,497	2,488	7,975	317	907	11,010	12,836
1922	43,208	2,453	1,626	2,916	7,384	488	1,590	11,826	14,925
1923	49,812	2,276	1,768	3,745	9,504	717	2,342	12,165	17,295
1924	48,534	2,571	1,753	3,667	8,537	518	1,679	12,520	17,289
1925	51,224	2,305	1,636	3,737	8,905	623	2,012	13,193	18,813
1926	53,309	2,406	1,603	3,654	9,928	692	2,185	13,458	19,383
Per cent change from 1925	+4.07	+4.38	−2.01	−2.22	+11.48	+10.91	+8.59	+2.01	+3.02
1924									
January-March	11,588	583	432	985	2,390	165	127	3,028	3,876
April-June	11,597	495	391	947	1,719	120	563	3,176	4,186
July-September	12,516	748	417	852	2,035	98	665	3,117	4,586
October-December	12,832	745	513	883	2,393	135	324	3,199	4,641
1925									
January-March	11,782	565	413	985	2,284	171	141	3,151	4,076
April-June	12,546	460	353	983	1,951	130	653	3,337	4,679
July-September	13,564	648	385	896	2,311	131	793	3,338	5,064
October-December	13,330	633	483	874	2,360	192	425	3,368	4,994
1926									
January	4,432	226	163	312	909	89	49	1,172	1,512
February	3,676	171	113	299	698	72	42	990	1,292
March	3,877	159	114	307	726	58	44	1,063	1,407
April	3,796	150	104	300	655	51	55	1,057	1,424
May	5,143	198	143	383	839	60	243	1,331	1,947
June	4,112	161	108	296	688	46	271	1,026	1,515
July	5,245	280	134	335	882	57	365	1,274	1,919
August	4,418	228	117	282	763	47	310	1,061	1,608
September	4,552	202	147	282	798	49	301	1,065	1,708
October	6,006	266	201	361	1,131	65	339	1,384	2,259
November	4,272	181	138	263	940	52	127	1,046	1,524
December	3,780	184	122	234	899	48	39	989	1,266

Source: American Railway Association.

Ratios Bearing on Railway Efficiency.

Compared with 1913, car-miles per car-day have increased 24 per cent, while the index of traffic units handled per employee has risen 36 per cent. Probably the best indication of operating efficiency is the gross ton-miles per train-hour. Although these data for 1913 are not available, the increase since 1920 (excluding locomotive and tender) has been from 14,877 to 20,705 ton-miles per train-hour, or 39 per cent. The net ton-miles per train-hour have increased from 7,302 in 1920 to 9,207 in 1926, or 26 per cent. The net tons of revenue freight per loaded car in 1926 increased slightly over 1925 but were not as great as in 1920. The pounds of coal consumed per 1,000 gross ton-miles decreased approximately one-third between 1913 and 1926 and over one-fifth between 1920 and last year. In the passenger service the pounds of coal consumed per passenger train car-mile decreased one-fifth between 1913 and 1926 and one-sixth between 1920 and last year.

In the spring of 1923, the chief executives of the principal carriers of the country agreed upon a comprehensive, concerted, and cooperative program, "To insure to the highest degree practicable, adequate provisions for the country's transportation requirements." The objective of the executives was to have the right kind of car at the right place at the right time and in proper condition, and to make prompt delivery of the shipments at the point of destination.

Railway efficiency as indicated in the performance ratios in Table 10 has steadily increased since the inauguration of this program. Along with the increase in the speed of the trains, an increase in the ton-miles per train-hour, a decrease in the amount of coal consumed per ton-mile, and an increase in the traffic units handled per employee, we find the public cooperative interest and activity through the regional advisory boards speeding up the loading and unloading of cars.

Table 10. –Sundry Performance Ratios Bearing on Railway Efficiency

Item	1913	1920	1921	1922	1923	1924	1925	1926	1926 compared with—	
									1913	1920
Freight service performance:									*P. ct.*	*P. ct.*
Car-miles per car-day	24.5	25.1	22.4	23.5	27.8	26.8	28.5	30.4	+24.1	+21.1
Index of traffic units handled per employee [1]	100.0	119.9	111.2	120.7	124.9	124.9	131.7	136.0	+36.0	+13.4
Revenue per ton-mile (cents)	0.719	1.052	1.275	1.177	1.116	1.116	1.097	1.082	+50.5	+2.9
Gross tons per train (excluding locomotives and tender)	------	1,443	1,435	1,464	1,539	1,588	1,670	1,737	------	+20.4
Net tons revenue freight—										
Per train	------	708	651	676	713	715	744	772	------	+9.0
Per loaded car	------	29.3	27.6	26.9	27.9	27.0	27.0	27.4	------	−6.5
Speed of freight trains per hour (miles)	------	10.3	11.5	11.1	10.9	11.5	11.8	11.9	------	+15.5
Gross ton-miles per train-hour (excluding locomotives and tender)	------	14,877	16,555	16,188	16,764	18,257	19,685	20,705	------	+39.3
Net ton-miles per train-hour	------	7,302	7,506	7,479	7,770	8,222	8,773	9,207	------	+26.1
Pounds of coal (or equivalent) consumed per 1,000 gross ton-miles (excluding locomotives and tender)	[2] 232	197	185	186	183	170	159	155	−33.2	−21.3
Passenger service performance:										
Passenger locomotive-miles per locomotive-day	------	116.6	103.4	101.7	108.6	108.5	110.4	113.8	------	−2.4
Pounds of coal (or equivalent) consumed per passenger train car-mile	[2] 19.8	18.8	17.7	17.9	18.1	17.0	16.1	15.8	−20.2	−16.0

[1] Traffic unit equals passenger-miles times 3 plus ton-miles, 1913 base year. [2] Estimated.

Source: Bureau of Railway Economics.

RATES AND FARES

Since the reductions of 1922 no sweeping changes have occurred in freight rates or passenger fares, and in 1926 there were few changes of importance even in individual rates. Slight adjustments in rates were made within restricted territories on certain commodities. For the most part, therefore, changes in total railroad revenues during the last few years reflect changes in volume, distance hauled, or character of freight and passenger traffic. The average revenue per ton-mile in 1926 was about 18 per cent lower than in 1921 based upon returns of Class I carriers. Had the 1921 ton-mile revenue average applied in 1926, the operating revenues would have been approximately $860,000,000 greater.

Receipts per Ton-Mile, by Districts.

Average receipts per ton-mile constitute a rough index of the general level of freight rates, weighted in accordance with the volume of the various items comprising the traffic and the distance carried, although a change in the character of traffic may change average receipts when actual rates remain constant. The year 1921 showed the highest average receipts, since which time there has been in each year a decline in all districts, except for a rise in the eastern from 1923 to 1924. In no district, however, has the average fallen below that for 1920.

Compared with 1913 the general average for 1926 (1.082 cents per ton-mile) is higher by 50.5 per cent. This is somewhat less than the general increase in the average level of wholesale prices, which in 1926 was 51 per cent above 1913. The differences in average receipts as among the districts are partly owing to differences in the character of freight handled. The southern district includes the roads of the Pocahontas region, which carry a very large volume of coal at a low average cost per ton-mile.

Table 11.—Average Receipts per Ton per Mile of Class I Railways (Cents)

Year	Total United States	District			Year	Total United States	District		
		Eastern	Southern	Western			Eastern	Southern	Western
1913 [1]	0.719	0.628	0.674	0.884	1920	1.052	1.020	0.909	1.170
1914 [1]	.723	.633	.668	.892	1921	1.275	1.243	1.079	1.422
1915 [1]	.722	.646	.639	.878	1922	1.177	1.172	.989	1.292
1916 [1]	.707	.647	.619	.842	1923	1.116	1.104	.959	1.227
1916	.707	.646	.622	.836	1924	1.116	1.122	.948	1.208
1917	.715	.663	.635	.824	1925	1.097	1.107	.926	1.195
1918	.849	.813	.755	.944	1926	1.082	1.095	.901	1.187
1919	.973	.914	.873	1.098					

[1] Years ended June 30; others are calendar years.

Source: Interstate Commerce Commission.

EMPLOYMENT AND WAGES

The average number of Class I railway employees in 1926 was 1,782,000 as compared with 1,744,000 in 1925. The total compensation paid these employees in 1926 was $2,949,000,000 as compared with $2,861,000,000 in 1925. For the year ended June 30, 1913, the average number of employees (Class I roads) was 1,759,000 and the wages paid totaled $1,339,000,000; in 1920 the average number of employees was 2,023,000 and the total compensation $3,682,000,000. These data exclude switching and terminal companies. The average number of employees on all railways approximated 1,859,427 in 1913 and 1,884,148 in 1926, an increase of 1.3 per cent. Between these two periods, however, the 8-hour day became effective.

Between 1925 and 1926 there was a slight increase in both the number of employees and the amount of wages paid. There was a reduction in the number of employees from 1924 to 1925 and a $35,000,000 increase in total wages paid. Labor cost per unit of service has decreased. The year 1926 showed increases over 1925 of 3.1 per cent in wages paid, 7.3 per cent in volume of traffic handled (revenue ton-miles), and 2.2 per cent in number of employees. This increased efficiency in operation was owing to the efforts of both management and men and to increased railway facilities such as locomotive equipment of greater tractive effort, and the replacement of obsolete and inferior freight cars by new heavy-capacity equipment.

Table 12.—Employees of Railways: Number and Compensation

NOTE.—Data for 1910 and years thereafter exclude switching and terminal companies. Average compensation per hour is calculated for all classes of employees, including those not paid on an hourly basis.

Year ended—	Average number of employees, all carriers	Average number of employees, Class I carriers	Total yearly compensation (1,000 dollars)[1]	Average compensation[1]	
				Per hour	Per year
June 30—					
1895	785,034	(2)	445,508	(2)	$568
1900	1,017,653	(2)	577,265	(2)	567
1905	1,382,196	(2)	839,945	(2)	608
1910	1,699,420	(2)	1,143,725	(2)	673
1913	[3] 1,859,427	1,759,020	1,338,612	(2)	761
Dec 31—					
1916	1,700,814	1,647,097	1,468,576	$0.283	892
1917	[3] 1,830,746	1,732,876	1,739,482	.320	1,004
1918	[3] 1,946,697	1,841,575	2,613,813	.458	1,419
1919	[3] 2,022,645	1,913,422	2,843,128	.565	1,486
1920	[3] 2,138,195	2,022,832	3,681,801	.676	1,820
1921	[3] 1,754,242	1,659,513	2,765,218	.667	1,666
1922	1,719,056	1,626,834	2,640,817	.613	1,623
1923	1,958,820	1,857,674	3,004,072	.610	1,617
1924	1,853,119	1,751,362	2,825,775	.623	1,613
1925	1,846,202	1,744,311	2,860,600	.631	1,640
1926	[3] 1,884,148	1,782,402	2,948,898	.633	1,654

[1] Data for 1913 and years thereafter are for Class I carriers.
[2] Data not available.
[3] Estimated, Class I totals taken as 94.6 per cent of employees of all carriers.
Source: Interstate Commerce Commission.

During the latter part of 1926 and the beginning of 1927, wage increases to the amount of 7.5 per cent were granted to certain transportation employees. These wage-rate changes were obtained under the operation of the railway labor act of 1926.

FINANCES

Operating Results.

A summary of the operating finances of railway companies since 1890 appears in Table 13. As compared with the average for the period 1891–1895, the year 1926 showed roughly an increase of five and three-fourths times in operating revenues, of six times in operating expenses, and of four times in net railway operating income. Taxes increased over 11 times during the same period. The operating ratio advanced sharply during the war, but gratifying decreases have been brought about since 1920. The 1926 operating ratio is practically the same as that for 1913–14.

Table 13.—Operating Finances of Railway Companies

NOTE.—In thousands of dollars. Data for 1926 relate only to Class I companies, the financial items for which, however, represent nearly 98 per cent of the total. Beginning with 1908, switching and terminal companies are excluded. See also Table 14.

Yearly average or year ended—	Operating revenues			Operating expenses	Operating ratio, per cent	Taxes	Net railway operating income [2]
	Total [1]	Freight	Passenger				
June 30:							
1891–1895	1,127,531	758,930	281,414	759,588	67.37	34,915	333,027
1896-1900	1,264.048	879.837	279.900	832,377	65.85	41,970	389,701
1901	1,588,526	1,118,543	351,356	1,030,397	64.86	46,708	511,421
1902	1,726,380	1,207,229	392,963	1,116,249	64.66	50,054	560,077
1903	1,900,847	1,338,020	421,705	1,257,539	66.16	53,252	590,056
1904	1,975,174	1,379,003	444,327	1,338,896	67.79	56,802	579,476
1905	2,082,482	1,450,773	472,695	1,390,602	66.78	58,712	633,168
1906	2,325,765	1,640,387	510,033	1,536,877	66.08	69,064	719,824
1907	2,589,106	1,823,652	564,606	1,748,516	67.53	73,743	766,846
1908	2,440,639	1,655,419	566,833	1,710,402	70.08	78,674	634,794
1909	2,473,205	1,677,614	563,609	1,650,034	66.72	85,140	710,474
1910	2,812,142	1,925,554	628,992	1,881,879	66.92	98,035	805,097
1911	2,852,855	1,925,951	657,638	1,976,332	69.28	102,657	744,669
1912	2,906,416	1,968,599	660,373	2,035,058	70.02	113,819	727,458
1913	[3] 3,193,118	[3] 2,198,931	[3] 695,988	[3] 2,235,923	[3] 70.02	[3] 122,005	[3] 805,266
1914	3,127,730	2.126,717	703,484	2,280,416	72.91	140,470	674,190
1915	2,956,193	2,037,926	646,475	2,088,683	70.65	137,775	694,276
Dec. 31:							
1916	3,691,065	2,631,092	722,359	2,426,251	65.73	161,825	1,058,506
1917	4,115,413	2,897,436	840,910	2,906,283	70.62	218,632	950,557
1918	4,985,290	3,522,052	1,046,166	4,071,522	81.67	229,533	646,223
1919	5,250,420	3,624,886	1,193,431	4,498,817	85.68	239,136	454,132
1920	6,310.151	4,420,833	1,304,815	5,954,394	94.36	289,272	12.101
1921	5.632,665	4,004,109	1,166,252	4,668,998	82.89	283,163	601,139
1922	5,674,483	4,085,742	1,087,516	4,509,991	79.48	308,145	769,411
1923	6,419,210	4,712,495	1,158,925	4,999,383	77.88	339,577	974,918
1924	6,045,252	4.437,380	1,085,672	4,608,807	76.24	347,437	984,463
1925	6,246,884	4,648,364	1,064,806	4,633,497	74.17	365,790	1,136,728
1926 [4]	6,380,092	4,807,045	1,042,950	4,666,226	73.14	388,942	1,213,543

[1] Includes miscellaneous revenues from operation.
[2] Obtained by deducting from railway operating revenues the following items: Railway operating expenses, railway tax accruals, uncollectible railway revenues, and net equipment and joint facility rents.
[3] Class I and Class II roads.
[4] Class I roads.

Source: Interstate Commerce Commission.

The total operating revenues of Class I carriers in 1926 amounted to $6,380,000,000, 4.2 per cent more than in 1925, and 114 per cent greater than the 1912–1914 average, and exceeding the total for the preceding peak year, 1923, by 1.4 per cent. The operating revenues of the southern district increased 5.4 per cent over 1925 and the increase in the eastern district was almost as large.

The total operating expenses in 1926 were $4,666,000,000, or about 2.8 per cent greater than in the preceding year. In all districts a greater increase appeared in operating revenues than in operating expenses.

The operating ratio in 1926 was reduced to 73.14 from 74.10 in 1925 and from a maximum of 94.32 per cent in 1920; the ratio had averaged 70.84 in 1912–1914. The ratio for the southern district again was lower than for either of the other two districts.

Table 14.—Operating Finances of Class I Railways,[1] by Districts

[In millions of dollars]

Year [2]	Operating revenues				Operating expenses			
	Total	Eastern	Southern	Western	Total	Eastern	Southern	Western
1912–1914 (average)	2,982	1,324	451	1,207	2,112	970	325	817
1916	3,597	1,622	523	1,452	2,357	1,102	340	915
1917	4,014	1,785	606	1,623	2,829	1,339	412	1,078
1918	4,881	2,207	785	1,889	3,982	1,892	610	1,480
1919	5,145	2,282	806	2,057	4,400	2,023	704	1,673
1920	6,178	2,747	977	2,454	5,831	2,730	913	2,188
1921	5,517	2,461	877	2,179	4,563	2,083	740	1,740
1922	5,559	2,517	915	2,127	4,415	2,060	709	1,646
1923	6,290	2,943	1,038	2,309	4,895	2,330	801	1,764
1924	5,921	2,666	1,024	2,231	4,508	2,069	768	1,671
1925	6,123	2,755	1,107	2,261	4,537	2,084	794	1,659
1926	6,380	2,899	1,167	2,314	4,666	2,167	832	1,667
Per cent change from 1925	+4.2	+5.2	+5.4	+2.3	+2.8	+3.9	+4.8	+5.0
	Net railway operating income [3]				Ratio of expenses to revenues (per cent)			
1912–1914 (average)	719	282	110	328	70.84	73.28	72.07	67.70
1916	1,040	417	167	456	65.54	67.97	65.02	63.01
1917	934	324	171	439	70.48	74.97	68.04	66.46
1918	639	192	139	308	81.58	85.76	77.76	78.30
1919	455	135	64	256	85.52	88.66	87.35	81.32
1920	17	[4] *124*	32	109	94.32	99.29	93.42	89.12
1921	601	230	92	279	82.71	84.63	84.38	79.86
1922	760	292	150	318	79.41	81.85	77.43	77.38
1923	962	418	177	367	77.83	79.20	77.15	76.39
1924	974	408	195	371	76.14	77.60	74.93	74.90
1925	1,121	475	239	407	74.10	75.67	71.68	73.37
1926	1,214	515	253	446	73.14	74.77	71.27	72.03
Per cent change from 1925	+8.3	+8.4	+5.8	+9.6				

[1] Excluding switching and terminal railways.

[2] Years ended June 30, 1912–1914; others, calendar years.

[3] Obtained by deducting from railway operating revenues the following items: Railway operating expenses, railway tax accruals, uncollectible railway revenues, and net equipment and joint facility rents.

[4] Deficit.

Source: Interstate Commerce Commission.

The net railway operating income for 1926 was a record figure, $1,214,000,000, 8.3 per cent greater than in 1925 and 25 per cent greater than in 1924. The increases in the three districts reflect the respective changes in the ratio of the expenses to the revenues. The western district showed a gain of 9.6 per cent, the eastern 8.4 per cent, and the southern 5.8 per cent. The net railway operating income in 1926 was about 69 per cent greater than the average for the three fiscal years ended June 30, 1914. It was derived, however, from gross operating revenues which were more than double the prewar figures.

Operating revenues for Class I railways during 1926 showed an increase of 1.4 per cent over 1923. In the eastern district operating revenues decreased 1.5 per cent since 1923, while the western and southern districts showed increases of 0.4 per cent and 12.3 per cent, respectively. The net railway operating income over the same period increased 25.3 per cent. The three districts showed the following increases over 1923: Southern, 42.8 per cent; eastern, 21.7 per cent; and western, 21.2 per cent.

The net railway operating income of Class I roads in 1926 was 5.7 per cent of the aggregate tentative valuation of the steam railway property of the carriers subject to the Transportation Act of 1920. For the southern district the 1926 ratio was 7.3 per cent, for the eastern district 5.8 per cent, and for the western district 5 per cent.

In a general rate case in 1920, the aggregate tentative valuation of all railroads was taken as $18,900,000,000 by the Interstate Commerce Commission, of which $18,577,000,000 was the tentative valuation assumed to apply to Class I railways, as of December 31, 1919. The tentative valuation as of December 31, 1925, using the 1920 figures as the base, is $21,243,000,000, which is obtained by adding the increases in net investment in road and equipment. This valuation was distributed as follows: Eastern district, $8,862,000,000; southern district, $3,450,000,000; western district, $8,931,000,000.

Table 15.—Operating Revenues and Net Railway Operating Income, All Class I Railways, by Months

[In millions and tenths of millions of dollars]

Month	Operating revenues						Net railway operating income					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	470.4	395.8	502.5	469.0	485.0	481.4	1.5	29.6	61.1	51.4	66.1	65.8
February	406.5	401.6	446.9	479.5	455.2	460.2	[1] *5.2*	47.7	39.3	71.6	65.2	63.3
March	459.0	475.2	535.8	505.4	486.7	530.5	30.8	83.5	84.1	80.3	73.4	94.5
April	433.4	417.1	523.3	475.2	473.7	499.7	29.9	50.0	83.5	62.3	66.5	76.3
May	444.9	449.4	548.1	477.5	489.0	517.4	36.9	62.1	90.3	60.9	76.2	88.1
June	461 6	474.0	541.3	465.7	507.0	539.9	51.1	76.3	88.3	65.8	92.1	107.3
July	462.9	443.8	536.3	481.8	522.5	556.5	69.3	69.3	84.9	74.4	99.7	116.9
August	505.7	474.1	564.5	508.5	555.5	578.8	90.2	52.2	98.9	95.7	124.9	133.0
September	498.3	500.9	546.1	541.0	565.6	590.0	87.6	58.7	92.5	117.0	134.5	145.5
October	536.7	550.3	587.9	572.9	591.5	609.0	105.5	85.1	103.8	127.2	138.0	146.1
November	465.9	523.6	532.0	505.9	533.0	561.0	66.9	83.2	86.8	93.4	107.0	114.7
December	425.3	513.6	494.6	505.2	524.1	526.5	49.7	79.0	70.0	86.7	94.6	80.9

[1] Deficit.

Source: Interstate Commerce Commission.

Both the operating revenues of Class I carriers and the net railway operating income reached a peak in October, 1926. January was the only month in which the operating revenues of 1925 exceeded those of 1926. The net railway operating income of January, February, and December was less than during 1925.

The net railway operating income for the eastern and the western districts was highest during September and October; in the southern district the net railway operating income for March, September, and October was approximately the same, being the highest of the year.

Table 16.—Operating Revenues and Net Railway Operating Income, Class I Railways, by Districts

[In millions and tenths of millions of dollars]

Month	Eastern district				Southern district				Western district			
	1923	1924	1925	1926	1923	1924	1925	1926	1923	1924	1925	1926
Operating revenues:												
January	234.1	215.8	219.4	214.1	85.2	83.7	88.3	96.7	183.2	169.5	177.3	170.6
February	209.4	221.8	208.8	206.4	79.1	87.0	85.8	92.9	158.4	170.7	160.6	160.9
March	256.5	237.7	223.4	246.6	92.4	91.2	91.8	103.2	186.9	176.5	171.5	180.7
April	254.1	221.3	222.5	234.5	88.5	84.5	86.4	93.4	180.7	169.4	164.8	171.8
May	269.6	221.6	230.4	242.5	89.6	82.7	86.5	93.6	188.9	173.2	172.1	181.3
June	265.0	214.8	234.7	251.9	85.0	77.3	86.6	93.5	191.3	173.6	185.7	194.5
July	259.2	220.9	242.1	252.4	83.0	78.3	88.1	96.1	194.1	182.6	192.3	208.0
August	268.6	229.0	255.4	262.6	86.2	82.2	94.5	96.9	209.7	197.3	205.6	219.3
September	247.6	237.0	244.7	264.1	85.1	85.3	98.5	98.8	213.4	218.7	222.4	227.1
October	263.0	247.5	253.0	271.7	91.7	91.8	104.7	103.3	233.2	233.6	233.8	234.0
November	236.5	219.0	231.4	254.2	86.6	87.6	98.0	99.7	208.9	199.3	203.6	207.1
December	225.7	223.0	231.7	242.0	85.7	94.5	100.9	97.9	183.2	187.7	191.5	186.6
Net railway operating income:												
January	22.3	21.4	26.0	24.1	15.0	13.2	16.6	19.0	23.8	16.8	23.5	22.7
February	15.0	29.9	27.8	23.0	13.2	17.6	18.2	19.1	11.1	24.1	19.2	21.2
March	40.2	36.8	32.0	43.7	18.9	18.6	20.4	24.0	25.0	24.9	21.0	26.8
April	43.6	30.6	35.2	39.5	17.3	14.9	16.2	17.5	22.6	16.8	15.1	19.3
May	49.8	31.0	39.5	44.6	16.2	14.0	16.3	18.9	24.3	15.9	20.4	24.6
June	48.6	30.5	44.0	49.9	13.2	11.8	17.2	20.3	26.5	23.5	30.9	37.1
July	43.7	34.1	47.7	50.1	12.3	12.5	18.4	22.0	28.9	27.8	33.6	44.8
August	47.2	42.1	57.0	57.1	13.6	15.6	22.8	21.6	38.1	38.0	45.1	54.3
September	33.3	46.3	51.3	58.6	13.8	18.0	24.8	23.9	45.4	52.7	58.4	63.0
October	34.1	46.3	49.3	58.0	15.5	19.3	25.2	24.9	54.2	61.6	63.5	63.2
November	29.1	32.1	38.7	46.3	13.0	17.7	21.5	22.2	44.7	43.6	46.8	46.2
December	24.4	32.5	35.6	30.1	15.3	21.8	22.0	19.8	30.3	32.4	37.0	31.0

Source: Interstate Commerce Commission.

Distribution of Operating Revenues.

Of $6,383,000,000 total operating revenues of Class I railways in 1926, $2,727,000,000 (excluding items for labor chargeable to capital account) or 42.7 per cent was spent for labor, compared with 43.2 per cent in 1925; 44.3 per cent in 1924 and 1923; 55.4 per cent in 1920; and 40.1 per cent in 1913. Although wage rates to certain classes of railroad employees have been increased since 1922, and the tonnage handled and ton-miles have risen, requiring more employees, the ratio of labor expenditures to total operating revenues has decreased from 44.4 to 42.7 per cent.

A total of $2,054,000,000 or 32.2 per cent of the operating revenues was spent for fuel, material, supplies, and other expenses. Taxes required $389,000,000 or 6.1 per cent of the total operating revenues in 1926 as compared to $359,000,000 or 5.9 per cent in 1925, and with 4.4 per cent in 1920. In only one year since 1920 has the ratio of taxes to total operating revenues shown a decrease, a decrease of 0.1 per cent between 1922 and 1925, and between 1920 and 1926 the actual taxes increased $117,000,000. In 1926, there remained 19 per cent or $1,213,000,000 of the total operating revenues as net railway operating income with which to pay fixed charges on bonded debts and returns on other capital employed. This compares favorably with 18.3 per cent in 1925, 16.4 per cent in 1924, and 15.3 per cent in 1923, but is considerably lower than 28.9 per cent in 1916.

Chart VI. DISTRIBUTION OF OPERATING REVENUE (CLASS I ROADS)

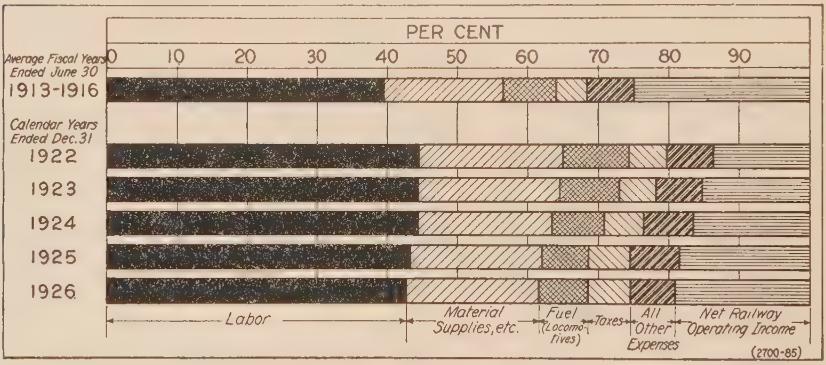


Table 17.—Distribution of Operating Revenues of Class I Railways [1]

[In millions of dollars]

Year	Total operating revenues	Expense items					Net railway operating income	Per cent of total operating revenues		
		Labor [2]	Fuel (locomotive)	Material, supplies, etc.[3]	Taxes	All other expenses		Labor	Taxes	Net railway operating income
1913 [4]	3,108	1,245	242	526	118	189	788	40.1	3.8	25.3
1916	3,597	1,366	251	551	157	232	1,040	38.0	4.4	28.9
1917	4,014	1,618	394	612	214	243	934	40.3	5.3	23.3
1918	4,881	2,431	500	822	223	266	639	49.8	4.6	13.1
1919	5,145	2,644	474	1,002	233	337	455	51.4	4.5	8.8
1920	6,178	3,424	675	1,367	272	424	17	55.4	4.4	.3
1921	5,517	2,590	524	1,134	276	392	601	46.9	5.0	10.9
1922	5,559	2,468	518	1,150	301	361	760	44.4	5.4	13.7
1923	6,290	2,785	529	1,266	332	415	962	44.3	5.3	15.3
1924	5,921	2,625	437	1,132	340	413	974	44.3	5.7	16.4
1925	6,123	2,646	407	1,158	359	432	1,121	43.2	5.9	18.3
1926	6,383	2,727	(5)	(5)	389	(5)	1,213	42.7	6.1	19.0

[1] Excludes switching and terminal companies.
[2] Excludes that portion of pay roll chargeable to capital account.
[3] Includes uncollectible railway revenues.
[4] Fiscal year ended June 30; others, calendar years.
[5] Three items amounting to $2,054,000,000 not available in detail.

Source: Compiled by Bureau of Railway Economics from reports of Interstate Commerce Commission.

Railway Capital and Dividends.

The total amount of railway capital actually outstanding has increased from $19,029,000,000 on June 30, 1913, to approximately $22,089,000,000, December 31, 1926. The data in Table 18 are from reports of the Interstate Commerce Commission except those for 1926, which are estimated by adding all new railroad issues during the year. The ratio of funded debt to total railway capital has increased rather regularly since 1919. A certain part of the reported capital outstanding consists of securities held by the railroads themselves, aggregating approximately $3,000,000,000. This leaves the net capitalization of the companies considered as one system at the end of 1926 about $19,000,000,000.

Table 18.—Railway Capital Actually Outstanding

NOTE.—In millions of dollars. Excludes securities held by or for the issuing company but not those held by other railway companies. Switching and terminal roads not included, but nonoperating as well as operating companies are included.

Year	Total railway capital	Funded debt	Stock	Per cent of debt to capital	Year	Total railway capital	Funded debt	Stock	Per cent of debt to capital
June 30:					Dec. 31—Contd.				
1908	16,199	8,898	7,301	54.9	1918	19,453	10,607	8,847	54.5
1910	17,774	9,764	8,011	54.9	1919	19,539	10,656	8,883	54.5
1912	18,989	10,437	8,552	55.0	1920	20,098	11,255	8,843	56.0
1913	19,029	10,429	8,600	54.8	1921	20,248	11,358	8,890	56.1
1914	19,401	10,747	8,654	55.4	1922	20,464	11,502	8,962	56.2
1915	19,720	11,085	8,635	56.2	1923	21,058	11,965	9,093	56.8
1916	19,681	10,938	8,743	55.6	1924	21,681	12,381	9,300	57.1
Dec. 31:					1925	21,734	12,321	9,413	56.7
1916	19,631	10,875	8,775	55.4	1926 [1]	22,089	12,667	9,454	57.3
1917	19,765	10,761	9,004	54.5					

[1] Estimated from unofficial sources.

Source: Interstate Commerce Commission.

Dividends declared in 1925, $409,645,000 (data for 1926 not available) were not quite as great as in 1923, but exceeded the payments in both 1922 and 1924. The percentage of stock-paying dividends, however, was greater than in any year since 1911. The average rate on dividend yielding stock, therefore, was lower than in 1923, as was the ratio of dividends on all stock, but both were greater than in 1924. (Table 19.)

New Financing.

The volume of railway securities issued in 1926 was less than that of any year since 1920, totaling only $422,583,000. New securities constituted nearly 82 per cent of the total issue. Long-term bonds and notes were $351,738,000, or 83 per cent of the total issued during the year.

Table 19.—Dividends of Railways

NOTE.—Nonoperating as well as operating roads are included. Switching and terminal roads are excluded beginning with 1908.

Year ended—	Per cent of stock-paying dividends	Dividends declared (1,000 dollars)	Average rate on dividend-yielding stock	Ratio of dividends declared to all stock
June 30:				
1891–1895 [1]		94,093	5.42	
1896–1900 [1]		104,295	5.27	
1901	51.27	156,736	5.26	2.70
1902	55.40	185,392	5.55	3.08
1903	56.06	196,728	5.70	3.20
1904	57.47	221,941	6.09	3.50
1905	62.84	237,964	5.78	3.63
1906	66.54	272,796	6.03	4.01
1907	67.27	308,089	6.23	4.19
1908	65.69	390,695	8.07	5.30
1909	64.01	321,072	6.53	4.18
1910	66.71	405,771	7.50	5.00
1911	67.65	460,195	8.03	5.42
1912	64.73	400,315	7.17	4.64
June 30—Contd.				
1913	66.14	369,078	6.37	4.22
1914	64.39	451,653	7.97	5.13
1915	60.45	328,478	6.29	3.80
Dec. 31:				
1916	62.02	366,561	6.75	4.19
1917	62.32	381,852	6.81	4.24
1918	58.09	339,186	6.60	3.83
1919	59.64	335,242	6.33	3.77
1920	57.30	331,103	6.52	3.74
1921	56.92	456,482	9.02	5.13
1922	59.38	338,806	6.37	3.78
1923	62.09	411,882	7.30	4.53
1924	64.97	385,130	6.37	4.14
1925	66.70	409,645	6.52	4.35

[1] Annual average.

Source: Interstate Commerce Commission.

Table 20.—Railroad Securities Issued: 1920–1926

[In thousands of dollars]

Item	1920	1921	1922	1923	1924	1925	1926
All classes of securities	377,880	655,288	651,531	518,249	940,297	514,709	422,583
New	322,380	352,666	523,808	464,516	779,617	380,281	345,991
Refunding	55,500	302,623	127,724	53,733	160,680	134,428	76,592
Long-term bonds and notes	356,380	638,793	589,211	471,840	809,084	473,591	351,738
New	302,380	336,671	464,488	427,956	667,404	339,563	297,146
Refunding	54,000	302,123	124,724	43,883	141,680	134,028	54,592
Short-term bonds and notes	21,500	16,495	35,352	19,088	75,250	24,900	30,000
New	20,000	15,995	32,352	9,238	56,250	24,500	8,000
Refunding	1,500	500	3,000	9,850	19,000	400	22,000
Stocks (all new)			26,968	27,322	55,963	16,218	40,845

Source: Commercial and Financial Chronicle.

Foreclosures and Receiverships.

The mileage operated by receivers at the end of 1926 totaled 17,711 as compared with 18,039 in 1925. According to the compilations made by the Railway Age, the number of roads in receivers' hands at the close of 1926 was 6 less than in 1924, numbering 42. Only two companies went into receivership during the year, and only one of these was an operating company. The mileage operated by receivers during 1926 was less than at the end of 1925, but on account of the inclusion of the Chicago, Milwaukee & St. Paul, it was larger than for any year since 1918 with the single exception of 1925. The number of roads placed in the hands of receivers during the year was less than in any year since 1876 when the records were first obtained.

Foreclosure sales covered 6,151 miles in 1922, 637 in 1923, 3,992 in 1924, 633 in 1925, and 12,852 in 1926. The sales in 1926 comprised 12 companies, while those in 1925 were for 6 companies.

Regional Consolidations.

Negotiations and plans for consolidation have been under way, although little actual progress toward unification of the carriers into a few large systems has been made. During the 12 months ended October, 1925, 26 out of 39 applications for authorization of one carrier to obtain control of another were granted, while in the same period in 1926, 48 applications, comprehending 6,328 miles of line, were granted. Since the effective date of paragraph 2, section 5, of the Transportation Act of 1920, the Interstate Commerce Commission has authorized the acquisition of control of over 31,000 miles of line.

During 1926 the commission denied applications for consolidation if they failed to show strong evidence of public gain. Among these were that of the New York, Chicago & St. Louis for authority to acquire control of the Chesapeake & Ohio, Hocking Valley, Erie, and Pere Marquette and that of the Norfolk and Western to acquire control of the Virginian.

Among the important pending applications are those of the New York Central to lease the Michigan Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Chicago, Kalamazoo & Saginaw, which are being considered in connection with an application of the "Big Four" to lease the Cincinnati Northern and the Evansville, Indianapolis & Terre Haute; that of the Texas & New Orleans to lease for unified operation 11 of the Texas and Louisiana lines of the Southern Pacific, having a total of about 4,000 miles; that of the Atlantic Coast Line to acquire control of the Atlanta, Birmingham & Atlantic, and that of the New York, New Haven & Hartford to lease the Central New England.

PLANT AND EQUIPMENT

New Motive Power and Rolling Stock.

In 1926 a smaller number of new railway cars was placed in service than in the previous year, which was also less than during 1924 and 1923. New motive power installations increased over 1925, although less than in preceding years. The large additions of equipment in 1923 and the more efficient handling of existing equipment eliminated the need of large purchases during the past two years. Further data are given on railway locomotives and cars in the section on Machinery (page 415).

Table 21 shows installations and retirements of locomotives and freight cars for Class I roads since 1913, and the number and capacity of those in service at the end of each year. While the number of new cars annually installed has decreased since 1923, the aggregate capacity of cars in service has increased. The actual number in service last year was about 51,000 less than in 1925. Fewer locomotives also were used. The average and aggregate tractive capacity, however, was considerably greater than a few years ago.

Table 21.—Locomotive and Freight-Car Equipment of Class I Railways

Year[1]	Locomotives					Freight-train cars				
			In service						Capacity	
	Number installed	Number retired	Number	Tractive capacity[2]		Number installed	Number retired	Number in service	Aggregate (1,000 tons)	Average (tons)
				Aggregate (million pounds)	Average (lbs.)[1]					
1913	4,381	2,338	61,172	1,803	29,956	162,670	96,825	2,237,446	86,978	[3] 38.3
1914	3,245	1,862	62,533	1,887	30,705	150,813	96,985	2,291,750	90,977	[3] 39.1
1915	1,114	1,507	62,125	1,970	31,840	86,012	90,347	2,286,792	39,838	40.0
1916	1,986	2,217	61,332	2,024	33,188	126,851	106,272	2,280,955	92,280	41.0
1917	2,148	1,423	61,890	2,088	33,932	117,210	62,253	2,330,123	95,467	41.5
1918	2,803	977	63,889	2,223	34,995	65,249	56,024	2,354,244	96,767	41.6
1919	2,062	999	64,983	2,313	35,789	76,019	43,274	2,389,860	99,001	41.9
1920	1,017	1,254	64,746	2,341	36,365	36,044	75,197	2,350,707	98,343	42.4
1921	1,330	1,130	64,949	2,385	36,935	63,406	69,245	2,344,780	98,504	42.5
1922	1,226	1,682	64,512	2,401	37,441	105,394	126,471	2,332,286	98,847	43.1
1923	4,360	3,746	65,327	2,544	39,177	232,060	213,789	2,345,591	101,318	43.8
1924	2,786	2,529	65,358	2,593	39,891	156,572	118,590	2,379,096	104,149	44.3
1925	1,600	2,873	63,974	2,587	40,666	139,083	128,573	2,387,551	105,570	44.8
1926[4]	2,399	3,574	62,428	2,608	41,783	96,733	103,863	2,336,470	105,718	45.3

[1] Years ended June 30 to 1915, inclusive, thereafter calendar years.
[2] Exclusive of electric locomotives.
[3] Includes both Class I and Class II.
[4] 1926 data from American Railway Association.

Source: Interstate Commerce Commission.

Condition of Equipment.

The ratio of unserviceable cars to the total number of freight cars for the year 1926 was 6.5 per cent and the corresponding ratio for freight and passenger locomotives was 16.6 per cent. These ratios are lower than for any previous year, comparing favorably with 7.7 per cent and 17.8 per cent, respectively, for 1925 and closely approaching the 5 per cent for unserviceable freight cars, and 15 per cent for unserviceable locomotives, set as a goal by the railway executives. In December, 1926, the percentage of unserviceable freight cars dropped to 5.5 per cent and that for unserviceable locomotives to 16 per cent.

During 1921 and 1922 the proportion of unserviceable equipment was extremely high, reaching 15.5 per cent for freight cars during one month in 1921 and 28.9 per cent for locomotives at one time in 1922. The small percentage of locomotives and cars awaiting repair is one of the causes of the greater efficiency in handling traffic.

Table 22.—Percentage of Unserviceable Freight Cars and Locomotives

Month	Percentage of unserviceable freight cars						Percentage of unserviceable locomotives					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
Monthly average	13. 1	12. 8	8. 0	7. 8	7. 7	6. 5	23. 7	24. 9	21. 4	18. 7	17. 8	16. 6
January	8. 8	13. 5	9. 0	6. 7	8. 0	6. 6	24. 8	23. 4	25. 6	18. 8	18. 8	17. 2
February	9. 8	14. 0	8. 8	7. 0	7. 8	6. 7	24. 8	23. 7	24. 8	19. 0	18. 8	17. 3
March	10. 8	13. 8	8. 8	7. 1	7. 8	6. 7	23. 7	23. 4	24. 4	19. 2	18. 9	17. 6
April	12. 3	13. 6	8. 8	7. 4	7. 9	6. 7	23. 9	23. 2	23. 6	19. 1	18. 5	17. 5
May	13. 6	14. 1	8. 9	7. 7	8. 1	6. 8	23. 8	22. 7	22. 4	18. 8	18. 0	17. 0
June	14. 4	14. 0	8. 6	8. 0	8. 2	6. 9	23. 3	21. 5	21. 5	18. 6	17. 7	16. 6
July	15. 4	14. 2	8. 1	8. 4	8. 2	7. 0	23. 5	24. 2	21. 0	18. 6	17. 3	16. 1
August	15. 5	14. 0	7. 8	8. 6	8. 1	7. 0	23. 5	27. 8	19. 6	18. 4	17. 1	16. 1
September	15. 5	12. 6	7. 3	8. 7	7. 8	6. 6	23. 2	28. 9	18. 6	18. 4	17. 1	15. 8
October	14. 8	11. 4	6. 6	8. 2	7. 1	6. 2	23. 1	27. 6	18. 2	18. 5	17. 2	15. 8
November	13. 8	9. 8	6. 6	7. 8	6. 9	5. 8	23. 5	26. 5	18. 5	18. 7	17. 2	16. 3
December	13. 0	9. 1	6. 6	7. 9	6. 8	5. 5	23. 2	25. 7	18. 5	18. 6	16. 9	16. 0

Source: Compiled by Bureau of Railway Economics from Interstate Commerce Commission reports.

Railway Construction.

The total track mileage (including first, second, third, and other track) built during 1926 was 1,527 miles comparing with 1,354 miles in 1925, 1,114 miles in 1924, 1,176 miles in 1923, and was more than double that for each of the three years preceding 1923. The mileage of new first track, representing extension of lines, was greater in 1926 than in 1923, 1924, or 1925, and accounted for two-thirds of the total new mileage. The Railway Age records new track (in miles) built in the United States as shown in the following table:

Year	First track	Second track	Third track	Fourth track or more	Total
1924	578. 95	456. 12	51. 22	25. 88	1, 113. 77
1925	643. 53	682. 46	18. 86	9. 55	1, 354. 40
1926	1, 004. 72	472. 53	29. 12	20. 26	1, 526. 63

Of the first track built in 1926, Texas with 242 miles accounted for the greatest mileage, while Florida ranked second with but 9 miles less. Practically one-half of the second trackage constructed was in Florida, while over one-fifth was in Ohio.

The total length of line abandoned in 1926 was 457 miles, as compared with 606 miles during 1925, 693 miles in 1924, 513 in 1923, and 677 in 1922. It is interesting to note that, for the first time in 10 years, the mileage of new lines built exceeded the mileage abandoned by a comfortable margin. Aside from trackage, miscellaneous construction, including new yards and engine terminals, track elevation and grade separation, station buildings, and bridge renewals and strengthening account for large sums expended in 1926.

Signal and Train Control Construction.

Interlocking and signal construction was more active in 1926 than in any year previous. More equipment was placed in service than even in the previous peak year, 1913, and prospects are good for an extensive program during 1927.

During 1926, the mileage of automatic block signals completed in the United States and Canada totaled 4,992.7 miles of road, showing a marked increase over the 2,938 miles equipped in 1925, which was the maximum program undertaken in the past 10 years. According to the Railway Age, installations of automatic signals in Canada and the United States during 1926 totaled 6,511 light signals and 3,283 semaphores. This is the first time the number of light signals has exceeded the semaphores to any extent.

There were 107 new interlocking plants constructed in the United States and Canada in 1926 as compared with 92 in the previous year. In addition to the new plants, 114 interlockings were rebuilt, requiring new machines and other equipment.

About 50 per cent of the installations of automatic train control required under the first order of the Interstate Commerce Commission were actually placed in service during 1926, as were 23 of the 36 installations on which the second order is now effective. Rapid progress has been made on installations during the past year, train stop or train control being in operation on 11,145 miles of track with about 4,550 locomotives, representing 85 per cent of the track miles and the locomotives required under the first order and 62 per cent of the track miles and 45 per cent of the locomotives under the second order.

LEGISLATION

There were 146 bills and resolutions affecting interstate commerce either introduced or pending during the short session of the 69th Congress, which ended March 4, 1927. This proposed legislation had to do with such questions as consolidation of railroads, modification of section 15A of the transportation act, motor transportation, regional selection of members of the Interstate Commerce Commission, refunding of interest on loans to railroads by the Government, and the issuance of certificates of convenience and necessity by States.

Out of this large number of bills and resolutions only two bills were enacted into law and one resolution was passed. One of these bills that became law amends section 22 of the interstate commerce act, making it permissive for common carriers engaged in interstate commerce to transport any totally blind person, accompanied by a guide, for one fare. The other permits reduced rates to be given by the carriers in cases of relief from earthquake, flood, fire, famine, drought, epidemic, pestilence, or other calamitous visitation or disaster, if such reduced rates have first been authorized by the Interstate Commerce Commission. The single resolution adopted was S. Res. 334, which requests the Interstate Commerce Commission to prepare a manuscript covering the texts of the various acts administered by it and annotated with a digest of decisions, with an index.

PACKING

One of the important factors influencing the cost of commodities to the ultimate consumer is loss and damage owing to improper packing, handling, and stowing of merchandise. This factor has been given considerable attention during the past few years by manufactures and associations interested in distribution costs. Loss and damage claims as paid by the railroads of the United States and Canada, for all causes, amounted to $38,187,315 in 1926, as compared to $49,540,377 in 1923, $119,833,127 in 1920, and $30,885,705 in 1913 (fiscal year). Improved containers, interior packing, mechanical handling, carloading, and trucking have brought about this result. Packages are being designed to meet individual requirements of approved marketing methods. The trend of modern merchandising requires even further development in this field and container associations are assisting in meeting these requirements.

Carriers Lead in Eliminating Waste in Transportation.

According to the American Railway Association, the year 1926 was the sixth consecutive year that a decrease has been shown as compared with the preceding year in the amount of loss and damage claims. In 1926 the number of claims was reduced 117,967 as compared with the preceding year, and the number pending was reduced 23,697. The claim-prevention committee of the freight-claims division, American Railway Association, in addition to the many activities which it continually carries on, inaugurated in 1926 classes for the study of claim-prevention work. These classes, which are open both to shippers and to the carriers' representatives, will be carried on during the current year.

Chart VII, compiled by the Bureau of Railway Economics, shows the part of each dollar of freight revenue paid out for loss and damage claims to shippers. It is interesting to note that 1926 is the lowest year on record since 1901, with only approximately one-fourth the amount paid during the peak year of 1919.

The freight container bureau of the American Railway Association has contributed during the year 1926 a number of valuable studies on the loss and damage situation. The 1927 program of the bureau consists of additional studies on improved packing and shipping conditions.

Table 23 shows that damages from practically every cause were smaller in 1926 than in 1923. Two items show increases, rough handling and concealed damage, which is probably explained by the fact that in 1926 the railroads handled approximately 3,497,000 more cars of freight than in 1923. Losses from robbery, improper refrigeration and ventilation, delay, and defective equipment have all been reduced by about one-half since 1923.

Chart VII.—**PERCENTAGE OF FREIGHT REVENUE PAID FOR LOSS AND DAMAGE**

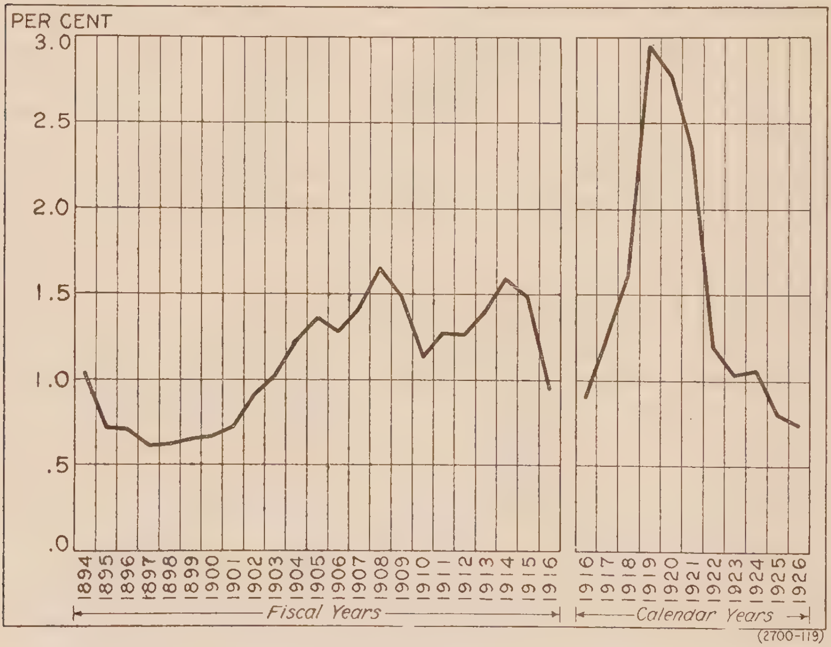


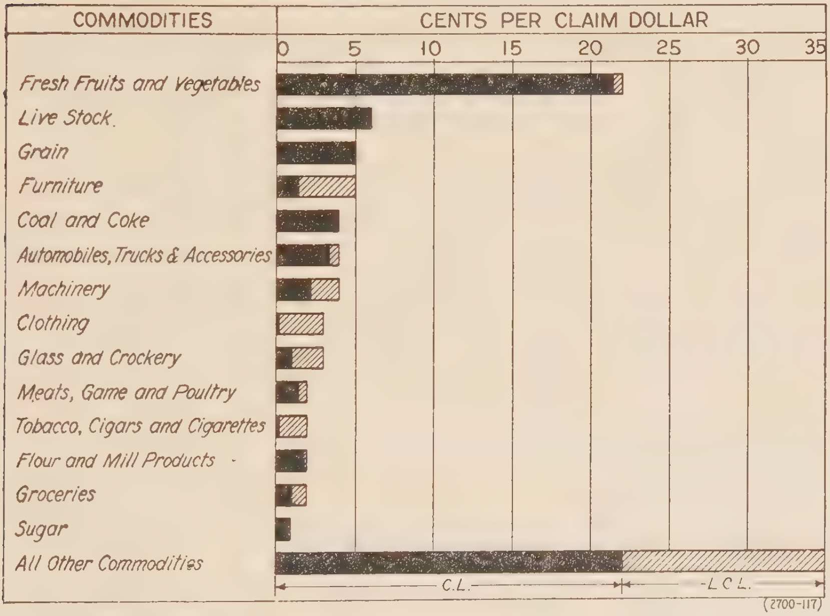
Chart VIII shows the amount in cents of each claim dollar required by each commodity carried by the railroads, subdivided further in percentages as between carload and less than carload losses. The outstanding group, on which was paid 22 per cent of all loss and damage claims, was fresh fruits and vegetables. Carload losses accounted for only about 72 per cent of the value of all claims, although the proportion of carload shipments was 75 per cent of the total.

Table 23.—Freight Loss and Damage Account, United States and Canada

Item	1923	1926	Per cent change 1926 over 1923
Rough handling	$8,895,212	$9,624,342	+8.2
Unlocated damage	7,707,947	7,538,047	−2.2
Delay	6,707,595	3,380,936	−49.6
Defective equipment	5,537,977	3,047,299	−45.0
Wreck	3,516,249	2,623,718	−25.4
Loss entire package	4,002,221	2,531,459	−36.7
Concealed damage	1,791,862	2,420,105	+35.1
Other unlocated loss	2,874,582	1,873,822	−34.8
Error of employee	1,123,391	920,686	−8.0
Improper handling, etc	940,676	831,755	−11.6
Robbery entire package	1,473,279	738,940	−49.8
Improper refrigeration and ventilation	1,488,871	735,369	−50.6
Freezing or heater failure	892,667	724,599	−18.8
Other robbery	1,644,205	575,561	−65.0
Fire	399,204	319,416	−20.0
Concealed loss	544,439	301,261	−44.7
Carload (total)	34,421,861	27,503,678	−20.1
Less than carload (total)	15,118,516	10,683,637	−29.3
Grand total	49,540,377	38,187,315	−22.9

Source: American Railway Association.

Chart VIII.—DISTRIBUTION OF THE CLAIM DOLLAR, BY COMMODITIES, BY CARLOAD AND LESS THAN CARLOAD LOSSES, 1926



Steamship Lines Improving Facilities.

Steamship lines, both in coastwise and foreign trade, are adopting more modern methods of handling cargo, especially with regard to facilities for package goods. Rope and net slings are being replaced by more efficient platform slings. Economical and fast spiral chutes and roller conveyers have also been installed in order to facilitate the loading and discharging of ships. Steamship lines are also giving more careful study to the stowage of cargo.

Container Development Subject of Studies.

The Bureau of Foreign and Domestic Commerce has supplemented its work on packing for export by a study on containers for domestic packing. With the assistance of an advisory board consisting of representatives of the container industries, carriers, and shippers, it has published a series of bulletins, each devoted to the proper construction and uses of particular type containers; that is, baling, fiber, plywood, wooden boxes, wirebound boxes, cooperage and steel barrels, crates, and paper-wrapped packages.

The National Committee on Wood Utilization is also engaged in studies with regard to the utilization of wood for container purposes.

A committee of the American Society for Testing Materials has announced a program which includes a research plan covering several years to determine standards of serviceability for all containers.

MOTOR TRANSPORTATION

There were at the end of the calendar year 1926 approximately 27,637,000 automobiles in operation throughout the world. These were in the number of the various classifications as follows: Passenger cars, 23,505,000; motor trucks, 3,940,000; motor busses, 192,000. Incomplete registration figures showed at the same time 1,713,000 motor cycles in use throughout the world, less than 135,000 of which were registered in the United States. The registration of automobiles in the United States, including vehicles owned by Federal, State, and municipal governments, was 22,137,000, or practically 80 per cent of world registrations. The ratio was not so large in the case of motor busses in the United States, registrations of 79,806 (Bus Transportation, February, 1927) being only about 42 per cent of the world total.

Registration during 1926 in the United States increased approximately 10 per cent as compared with an increase of 13 per cent during 1925 and an increase in all countries outside the United States of over 18 per cent in 1926. This was not owing to a decrease in production or sales but to an increase in the number of retirements of vehicles scrapped or otherwise rendered unserviceable.

The increase in the number of motor cars registered was shared by all the States in much the same ratio as in 1925. (Table 25.) Florida registered an increase of about 40 per cent as compared with 47 per cent in the preceding year. Oklahoma reported the next largest gain amounting to approximately 18 per cent, while Utah, Idaho, Mississippi, and Alabama all reported increases of more than 16 per cent. South Dakota registered an increase of only 202 vehicles or less than 1 per cent which was smaller than that of any other State.

Table 24.—Motor Vehicle Registration [1]

Country and year	Grand total	Number per 1,000 population	Passenger cars, taxis, and busses	Motor trucks and road tractors [2]
United States:				
1914	1,711,339	17	(3)	(3)
1916	3,512,996	35	(3)	(3)
1918	6,146,617	59	(3)	(3)
1920	9,231,941	87	8,225,859	1,006,082
1921	10,463,295	96	9,483,391	979,904
1922	12,238,375	111	10,959,571	1,278,804
1923	15,092,177	135	13,539,608	1,552,569
1924	17,593,677	155	15,460,649	2,133,028
1925	19,937,274	173	17,496,420	2,440,854
1926	22,001,393	188	19,237,171	2,764,222

[1] Includes passenger automobiles, taxis and cars for hire, and busses; and the commodity carrying or nonpassenger motor vehicles, which include motor trucks and road tractors (excluding farm tractors).

[2] Previous to 1924 excludes road tractors.

[3] Not shown separately.

Source: Bureau of Public Roads, Department of Agriculture.

Table 25.—Motor Vehicle Registrations: Passenger Cars and Motor Trucks Combined, by States

Note.—Net number of cars and trucks shown when possible, excluding reregistrations and nonresident registrations. Totals in this table do not include those official cars which are exempt (or partially exempt) from paying regular registration fees to the States.

Division and State	1915 [1]	1920 [1]	1926			
			Total number of motor vehicles	Number per 1,000 population	Passenger cars, taxis, and busses	Motor trucks and road tractors
United States	**2,445,666**	**9,231,941**	**22,001,393**	**188**	**19,237,171**	**2,764,222**
New England:						
Maine	21,545	62,907	151,486	192	124,158	27,328
New Hampshire	13,449	34,680	89,001	196	78,400	10,601
Vermont	11,499	31,625	74,063	210	68,524	5,539
Massachusetts	102,633	274,498	690,190	164	593,234	96,956
Rhode Island	16,362	50,477	110,746	160	91,798	18,948
Connecticut	41,121	119,134	263,235	164	222,283	40,952
Middle Atlantic:						
New York	255,242	676,205	1,815,434	161	1,508,314	307,120
New Jersey	81,848	227,737	651,415	177	531,702	119,713
Pennsylvania	160,137	570,164	1,455,184	151	1,264,453	190,731
East North Central:						
Ohio	181,332	621,390	1,480,246	224	1,295,020	185,226
Indiana	96,915	333,067	772,326	247	665,126	107,200
Illinois	180,832	568,924	1,370,503	190	1,195,897	174,606
Michigan	114,845	412,717	1,118,785	255	969,686	[2] 149,099
Wisconsin	79,741	293,298	662,282	230	581,994	80,288
West North Central:						
Minnesota	93,269	324,166	630,285	238	559,128	71,157
Iowa	145,109	437,378	698,998	288	648,218	50,780
Missouri	76,462	297,008	654,554	187	587,856	66,698
North Dakota	24,908	90,840	157,822	246	145,571	12,251
South Dakota	28,724	120,395	168,230	244	153,840	14,390
Nebraska	59,000	219,000	366,773	265	337,989	[3] 28,784
Kansas	72,520	294,159	491,276	270	441,373	[2] 49,903

[1] Does not include road tractors.

[2] Includes busses.

[3] Includes only trucks and busses over 3,000 pounds; others classified as passenger cars.

Table 25.—Motor Vehicle Registrations: Passenger Cars and Motor Trucks Combined, by States—Continued

Division and State	1915	1920	1926			
			Total number of motor vehicles	Number per 1,000 population	Passenger cars, taxis, and busses	Motor trucks and road tractors
South Atlantic:						
Delaware	5,052	18,300	44,834	187	36,246	[2] 8,588
Maryland	31,047	102,841	252,852	160	240,743	12,109
District of Columbia	8,009	34,161	111,497	211	97,794	13,703
Virginia	21,357	115,470	322,614	128	273,764	48,850
West Virginia	13,279	80,664	227,836	137	201,645	26,191
North Carolina	21,000	140,860	[4] 385,047	135	352,217	32,830
South Carolina	15,000	93,843	181,189	99	163,551	17,638
Georgia	25,000	146,000	277,468	88	241,949	35,519
Florida	[5] 10,850	73,914	401,562	305	331,892	69,670
East South Central:						
Kentucky	19,500	112,683	281,557	112	252,632	28,925
Tennessee	[6] 7,618	101,852	279,639	113	254,342	25,297
Alabama	11,634	74,637	225,930	89	197,983	27,947
Mississippi	9,669	68,486	205,200	115	184,133	21,067
West South Central:						
Arkansas	8,021	59,082	209,419	110	179,480	29,939
Louisiana	11,380	73,000	239,500	125	204,000	35,500
Oklahoma	25,032	212,880	499,938	213	449,955	49,983
Texas	[4] 40,000	427,693	1,049,869	198	944,905	104,964
Mountain:						
Montana	14,540	60,650	103,958	150	88,840	15,118
Idaho	7,071	50,861	94,760	182	86,339	8,421
Wyoming	3,976	23,926	49,883	211	44,358	5,525
Colorado	28,894	129,255	248,613	235	227,708	20,905
New Mexico	5,100	22,100	54,996	142	53,173	1,823
Arizona	7,753	34,601	73,682	166	63,294	10,388
Utah	9,177	42,616	85,380	166	72,880	12,500
Nevada	2,009	10,464	24,014	312	19,300	4,714
Pacific:						
Washington	38,823	173,920	363,279	236	310,386	52,893
Oregon	23,585	103,790	233,568	266	214,946	18,622
California	163,797	583,623	1,600,475	371	1,384,152	[2] 216,323

[2] Includes busses.
[4] Estimated.
[5] Registrations incomplete.
[6] Cars registered during 1915 only; total, approximately 26,000.

Sources: Bureau of Public Roads and Bureau of the Census.

The use of automobiles as public carriers continues to increase. Comparative figures on taxicabs and motor busses, however, can not be given as the repeal of the Federal excise tax on these types of carriers in the early part of the year prevented an accurate check on the number in operation. This business shows a tendency toward consolidation into larger operating companies in the taxicab, motor bus, and truck fields, and a more economic arrangement of the routes of the latter two where the presence of competition of existing carriers has a tendency to limit earnings.

The use of interurban bus and truck lines has become stabilized to a greater extent than previously and both steam and electric railways are increasing their use of motor busses as feeders and to supplement their existing schedules. While there is some complaint by railways and traction companies of loss of earnings through the competition of motor traffic, it is perhaps a more common belief that most of this traffic represents an increase in the total movement which would not otherwise have taken place.

For further data on the various phases of the automotive industry see the section on automotive products.

INLAND WATERWAYS

Aggregate River and Canal Transportation.

The total tonnage carried via our inland waterways, including the navigable rivers and canals, without known duplication, aggregated approximately 204,569,000 tons in 1925 which was 18 per cent more than in 1924. The tonnage passing through the Detroit River, connecting Lakes Huron and Erie was 90,401,000 tons, of which 8,525,000 tons was local traffic. The navigable rivers of the United States accounted for 118,294,000 tons of commerce, excluding through traffic of the Detroit River and all other known duplication of cargo. This was an increase of approximately 16,000,000 tons of traffic over 1924. These figures may be compared with the volume of traffic by other channels of transportation (so far as possible eliminating duplication of tonnage via any one means of transport) as shown in the following table:

Item	1924	1925
	Tons	*Tons*
Tonnage originating on railways	1,188,000,000	1,247,000,000
Overseas foreign commerce	82,118,000	79,931,000
Great Lakes trade, eliminating trade between the United States and Canada	83,292,000	99,916,000
Trade between United States and Canada via Great Lakes	12,930,000	12,820,000
United States coastwise ocean-borne commerce (excluding Great Lakes and Panama Canal)	67,678,000	84,416,000
Total of navigable rivers and canals (excluding all known duplication)	173,190,000	204,569,000
River transportation in the United States (excluding transit tonnage of Detroit River)	102,432,000	118,294,000
Canal transportation in the United States	92,290,000	109,410,000
Sault Ste. Marie	72,037,000	81,875,000
Panama Canal (intercoastal traffic only)	11,327,000	9,460,000

Great Lakes to Ocean Waterways.

Investigations relative to the Great Lakes Waterways were completed during 1926. The conclusions of the United States St. Lawrence Commission were as follows: That the construction of a shipway from the Great Lakes to the sea is imperative for the relief and development of the interior of the continent; that the shipway should be constructed on the St. Lawrence route provided suitable agreement can be made with Canada for its joint undertaking; that the development of the power resources of the St. Lawrence should be undertaken by appropriate agencies; and that negotiations should be entered into with Canada in an endeavor to arrive at agreement upon all these subjects.

The joint board of engineers reported that the scheme in its broad outline was practicable and estimated that "The waterway can be opened to navigation in seven or eight years from the time that active work has begun."

The Department of Commerce completed its economic survey of the Great Lakes-to-ocean waterway projects and made the report in the early part of 1927 which covered the potential traffic available by proposed routes; the possibility of lower freight rates to attract traffic; the possibility of ocean vessels entering the Lakes trade; and the economic benefits to be derived from the project.

On January 3, 1927, President Coolidge presented for the information of Congress the report made by the United States St. Lawrence Commission, appointed to advise in the development of the shipway from the Great Lakes to the sea.

Table 26.—Traffic Through Sault Ste. Marie Canals (Short Tons of Cargo)

Year	Total tonnage (thousands)	Year	Total tonnage (thousands)	Year	Total tonnage (thousands)	Year	Total tonnage (thousands)
1890	9,041	1902	35,961	1906	51,751	1910	62,363
1895	15,063	1903	34,674	1907	58,217	1911	53,477
1900	25,643	1904	31,546	1908	41,391	1912	72,473
1901	28,403	1905	44,271	1909	57,895		

Year	Total	Iron ore	Coal	Stone	General merchandise	All other [1]	Wheat	Other grain	Flour (thousands of barrels)
	Thousands of short tons						Thousands of bushels		
1913	79,718	48,109	18,623	6	1,771	11,209	204,822	112,230	10,213
1914	55,370	31,414	14,487	--------	1,317	8,152	150,284	68,338	9,715
1915	71,290	45,214	13,357	--------	1,595	11,124	255,482	64,787	8,437
1916	91,888	63,452	16,123	517	904	10,892	226,063	93,190	10,240
1917	89,814	61,374	18,299	571	658	8,912	185,899	67,416	8,450
1918	85,680	60,551	17,982	402	494	6,251	122,718	30,801	8,229
1919	68,236	46,923	13,875	371	542	6,524	113,735	52,734	8,088
1920	79,282	56,780	14,156	563	556	7,226	143,456	51,630	7,478
1921	48,259	22,595	14,763	493	600	9,807	197,715	95,694	10,217
1922	66,067	42,227	9,461	657	881	12,841	275,615	119,225	9,383
1923	91,380	59,357	18,396	697	657	12,272	282,986	87,523	10,486
1924	72,037	42,492	13,665	791	623	14,565	289,723	165,477	10,996
1925	81,875	53,874	12,874	667	707	13,752	292,818	149,927	9,289
1926	85,679	57,649	14,439	582	718	12,292	271,997	100,270	9,797
Per cent change from 1925	+4.6	+7.0	+12.2	−12.7	+1.6	−10.6	−7.1	−33.8	+5.4

[1] Mainly grain and flour reported separately in bushels and barrels, respectively, and shown in last three columns.

Source: Board of Engineers for Rivers and Harbors.

Great Lakes.

Traffic moving through the canals at Sault Ste. Marie, which includes a very large part of the Great Lakes commerce, in 1926 was 85,679,000 tons of cargo, an increase of almost 4,000,000 tons over the preceding year but 5,700,000 tons less than in 1923. The decline between 1923 and 1924 had been principally in ore and coal.

The increase in 1925 and 1926 was in ore cargoes, which in 1925, were over 26 per cent, and in 1926, 36 per cent greater than in 1924. Iron ore and coal accounted for 84 per cent of the total traffic in 1926, wheat and grains approximately 9 per cent, while general merchandise was less than 1 per cent of the total shipments.

Mississippi and Warrior Rivers.

Tonnage on the lower Mississippi River increased consistently from 1922 to 1925, the greatest increase over 1924 being on the Memphis-Vicksburg section, where it reached 92.8 per cent. The passenger traffic, however, decreased on all sections except the Memphis-Vicksburg, where it increased about one-fourth.

Table 27.—Lower Mississippi River Traffic: Freight and Passengers

NOTE.—Each section of the river is treated separately and some of the traffic of each is duplicated in others. The section "Between Ohio and Missouri Rivers" for 1921 and previous years was reported as "St. Louis to Cairo." Ferry traffic is not included.

Year	Between Ohio and Missouri Rivers		Cairo to Memphis		Memphis to Vicksburg		Vicksburg to New Orleans	
	Short tons	Passengers	Short tons	Passengers	Short tons	Passengers	Short tons	Passengers
1919	360, 179	89, 699	655, 938	151, 314	1, 056, 200	121, 842	3, 478, 294	54, 096
1920	1, 008, 152	719, 097	1, 044, 945	69, 757	925, 763	477, 155	2, 874, 910	267, 349
1921	1, 104, 150	494, 924	902, 823	124, 485	1, 629, 747	102, 930	7, 323, 335	222, 338
1922	548, 114	1, 945, 642	923, 386	104, 162	1, 441, 048	62, 690	5, 544, 506	154, 402
1923	723, 068	2, 689, 258	1, 048, 322	159, 224	1, 452, 837	13, 748	5, 493, 297	204, 685
1924	738, 728	1, 771, 971	1, 153, 021	109, 987	1, 666, 440	49, 855	7, 633, 277	223, 462
1925	1, 003, 569	533, 484	1, 688, 654	68, 092	3, 212, 259	60, 534	9, 101, 650	214, 615

Source: Annual Report of the Chief of Engineers, United States Army.

The Mississippi and Warrior River barge lines, serving the Mississippi between St. Louis and New Orleans, and the Warrior River between Birmingham, Ardova, and Mobile, have been operated by the Federal Government since 1918. During 1926 there were 1,044,649 tons of cargo carried by the Mississippi line and 296,929 tons by the Warrior River line as compared with 910,755 tons and 231,464 tons, respectively, in 1925. There has been a steady increase in the amount of traffic carried by the Mississippi section during the past four years. Total southbound traffic in 1926 via the Warrior River section increased about 27 per cent over 1925; coal shipments increased about 50 per cent. Shipments northbound increased about 30 per cent in 1926. The 1926 total traffic, however, was only about 5 per cent greater than the 1924 shipments.

Table 28.—Mississippi-Warrior Federal Barge Line Tonnage

NOTE.—Total tonnage in 1922 was: Mississippi, southbound 331,816, northbound 267,853; Warrior, south bound 159,728, northbound 100,616; in 1923, Mississippi, southbound 390,870, northbound 319,561; Warrior, southbound 181,796, northbound 87,545.

Section and commodity	Southbound		
	1924	1925	1926
Mississippi section	**408,602**	**430,111**	**476,621**
Wheat	99,108	176,273	113,056
Corn	90,974	33,783	49,818
Rye	6,681	4,761	6,163
Cotton	12,268	17,053	47,699
Bauxite ore concentrates	19,654	15,567	17,904
Fabricated steel	1,082	37,360	42,466
Bar iron	3,336	(1)	(1)
Canned goods	14,929	14,703	27,295
All other	160,570	130,611	172,220
Warrior section	**134,770**	**111,581**	**141,431**
Coal	82,678	26,463	39,658
Rails	36,765	49,314	49,639
Bar iron	5,087	(2)	(2)
Steel plates	1,699	10,504	19,744
Barbed wire	(2)	(2)	(2)
Angle iron	2,007	(2)	(2)
Nails	516	3,053	(2)
All other	6,018	[3] 22,247	[4] 32,390

Section and commodity	Northbound		
	1924	1925	1926
Mississippi section	**440,901**	**480,644**	**568,028**
Bauxite ore	163,301	152,493	123,208
Sugar	148,916	192,421	305,373
Sisal	22,524	39,820	28,491
Coffee	17,507	12,776	16,755
Paper	6,140	(2)	(2)
Nitrate of soda	15,074	(2)	(2)
Burlap	10,875	11,873	11,652
Canned goods	6,513	7,819	10,026
All other	50,051	63,442	72,523
Warrior section	**87,575**	**119,883**	**155,498**
Manganese ore	32,031	37,942	25,614
Sulphur	22,566	21,788	27,012
Salt	4,141	2,888	4,311
Sugar	5,361	21,167	54,171
Canned goods	2,178	2,892	3,106
Lumber	10,629	14,631	17,045
Merchandise	(2)	4,002	3,893
All other	10,669	14,573	20,346

[1] Included in "Fabricated steel."
[2] Included in "All other."
[3] Includes: Cotton, 3,316 tons; pig iron, 5,224 tons; and cotton ties, 8,733 tons.
[4] Includes: Cotton, 17,518 tons; pig iron, 672 tons; and cotton ties, 2,082 tons.

Source: Inland Waterways Corporation.

New York State Canals.

For a century New York State has had a system of canals which has carried a very considerable volume of traffic. The tonnage handled by these canals increased quite steadily and reached a peak of about 6,000,000 tons in the years immediately following the Civil War. Our railway system was greatly developed during the seventies and canal traffic was somewhat reduced. The curtailment of shipments over the internal waterways of New York was greatly intensified in the nineties and in the first two decades of the present century, and shipments reached a low point of 1,159,000 tons in 1918. During 1918 the New York State Barge Canal which had been under construction for a number of years was completed and there has since that time been a steady growth of canal traffic.

The total movement of traffic on the New York State canals amounted to 2,369,000 tons in 1926 which was about 1 per cent larger than in 1925 and over twice as great as in 1918. Of the 1926 total, 82 per cent was carried on the Erie Canal. Table 30 shows the tonnage of the principal commodities carried during each of the past three years. The most important commodity is wheat while other commodities, which are carried in large volumes, include barley, petroleum, sulphur, and sand, stone, and gravel. Shipments of wheat in 1926 were 11 per cent smaller than in 1925 and the decline in barley shipments was almost as great. The tonnage of flaxseed carried, on the other hand, was three times as large as in 1925 and there were also considerable increases in the quantities of rye, lumber, sulphur, and coal carried.

Table 29.—New York State Canals: Tonnage of Freight Moved

NOTE.—All figures in short tons. Tonnage handled over State terminals but not moved through any portion of the canal channel is not included.

Yearly average	All canals	Erie division	Year	All canals	Erie division
1871–1875	5, 974, 097	3, 326, 073	1917	1, 297, 225	675, 083
1876–1880	5, 219, 888	3, 542, 020	1918	1, 159, 270	667, 374
1881–1885	5, 210, 389	3, 495, 590	1919	1, 238, 844	842, 164
1886–1890	5, 281, 441	3, 589, 631	1920	1, 421, 43	891, 221
1891–1895	4, 112, 061	2, 962, 528	1921	1, 270, 407	993, 689
1896–1900	3, 544, 951	2, 446, 065	1922	1, 873, 434	1, 485, 109
1901–1905	3, 335, 210	2, 144, 492	1923	2, 006, 284	1, 626, 062
1906–1910	3, 238, 129	2, 206, 595	1924	2, 032, 317	1, 691, 766
1911–1915	2, 448, 837	1, 626, 451	1925	2, 344, 013	1, 945, 466
1916–1920	1, 348, 365	798, 706	1926	2, 369, 367	1, 935, 278

Source: Commissioner of Canals and Waterways, Department of Public Works, State of New York, Albany, N. Y.

Table 30.—Traffic on the New York State Canals (Tons)

Commodity	Entire system		
	1924	1925	1926
Total	**2, 032, 317**	**2, 344, 013**	**2, 369, 367**
Products of agriculture:			
Wheat	412, 840	566, 669	503, 432
Rye	173, 712	43, 610	67, 344
Flaxseed	118, 518	21, 880	64, 066
Barley	63, 628	253, 755	227, 788
Corn	34, 666	18, 133	8, 645
All other	30, 301	48, 019	28, 236
Forest products:			
Lumber	80, 490	69, 940	96, 760
Pulpwood	8, 744	9, 069	5, 719
All other	14, 077	19, 453	21, 218
Products of the ground:			
Sand, stone, gravel	384, 204	366, 075	332, 803
Sulphur	101, 624	177, 859	208, 627
Coal	51, 743	37, 222	53, 687
All other	21, 657	21, 553	34, 524
Manufactured products:			
Petroleum and other oil	290, 750	322, 141	325, 705
Iron, pig and bloom	32, 651	35, 907	44, 156
Iron or steel articles	12, 083	20, 464	16, 835
Brick	35, 974	45, 332	43, 886
Salt	35, 814	69, 809	50, 869
Sugar	8, 875	24, 782	42, 054
Paper and paper products	30, 368	47, 738	58, 975
Chemicals and drugs	30, 492	33, 714	26, 001
All other	34, 657	76, 704	78, 734
All other products	24, 449	14, 185	29, 303

Source: Superintendent of Public Works, State of New York.

OCEAN SHIPPING[1]

SUMMARY.—The tonnage of the American merchant marine declined in 1926 compared with 1925, but continued to be more than twice as large as before the war. The loss appeared almost entirely in the tonnage engaged in foreign trade, which was still more than seven times as great as in 1914.

The idle steam shipping of the world decreased to a new low postwar total in 1926. At the end of the year there were only 4,076,000 gross tons laid up as compared with 5,845,000 tons at the close of 1925. About 71 per cent of the world's idle fleet is composed of American ships and 13 per cent of British ships. A decline occurred in the amount of tonnage under construction in the world as a whole, the total for December 31, 1926, being 1,933,000 gross tons compared with 2,070,000 tons on December 31, 1925. The United States, however, with 151,000 tons showed a gain of about 44 per cent.

Entrances at United States ports of vessels engaged in foreign trade totaled 79,923,000 net tons, a record figure which amounted to 7,545,000 tons more than in 1925 and 65 per cent over the 1910–1914 average. Of these, about 68 per cent (tonnage) carried cargo, compared with 73 per cent in 1925. American vessels represented 35 per cent of the total entrances as against 40 per cent in 1925. Clearances from United States ports aggregated 8,815,000 tons more in 1926 than in 1925. Vessels with cargo represented 80 per cent of the total as compared with 78 per cent in 1925. The weight of cargo exported was greater by 18,880,000 tons in 1926 than in 1925, but the weight of cargo imported increased only 515,000 tons.

Table 31.—Summary of Major Statistics of Shipping

[In thousands of tons

Item	1910-1914 average [a]	Calendar years, except as noted						Per cent change 1926 from 1925
		1921	1922	1923	1924	1925	1926	
American merchant marine:								
Total gross tonnage	7,735	[a] 18,282	[a] 18,463	[a] 18,285	[a] 17,741	[a] 17,406	[a] 17,311	−0.5
Tonnage in foreign trade	931	[a] 11,077	[a] 10,720	[a] 9,069	[a] 8,794	[a] 8,151	[a] 7,719	−5.3
Entrances, in foreign trade:								
Total net tonnage	46,619	62,285	65,191	66,319	68,292	69,378	76,923	+10.9
With cargo	32,597	41,738	49,397	48,986	48,738	50,773	52,237	+2.9
Clearances, in foreign trade:								
Total net tonnage	46,579	62,665	64,839	66,624	68,910	70,228	79,043	+12.6
With cargo	40,404	48,677	48,478	51,912	53,720	54,555	63,480	+16.4
Panama Canal, total cargo tonnage	[b] 4,967	10,707	13,711	25,161	25,892	23,701	27,586	+16.4

[a] As of June 30 or for years ended June 30.
[b] Calendar year 1915 only.

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[1] *General note as to units of measurement.*—"Cargo tonnage" represents weight of cargo actually loaded, unloaded, or carried in either long tons (2,240 pounds) or short tons (2,000 pounds) as specified. All other tonnage figures refer to capacity of vessels. The terms "gross and net tonnage" refer to space measurement, 100 cubic feet being called 1 ton. Gross tonnage is the capacity of the entire space within the frames and the ceiling of the hull, together with those closed-in spaces above deck available for cargo, storage, passengers or crew, with certain minor exemptions. Net or registered tonnage is what remains after deducting from the gross tonnage the spaces occupied by the propelling machinery (including allowance for fuel), crew quarters, master's cabin, and navigation spaces. It represents substantially space available for cargo and passengers. The net tonnage capacity of a ship recorded as "entered with cargo" may bear little relation to the actua weight of the cargo.

Chart IX.—WORLD MERCHANT MARINE (VESSELS OF 100 GROSS TONS AND OVER)—GROSS TONNAGE OF STEEL STEAM AND MOTOR VESSELS

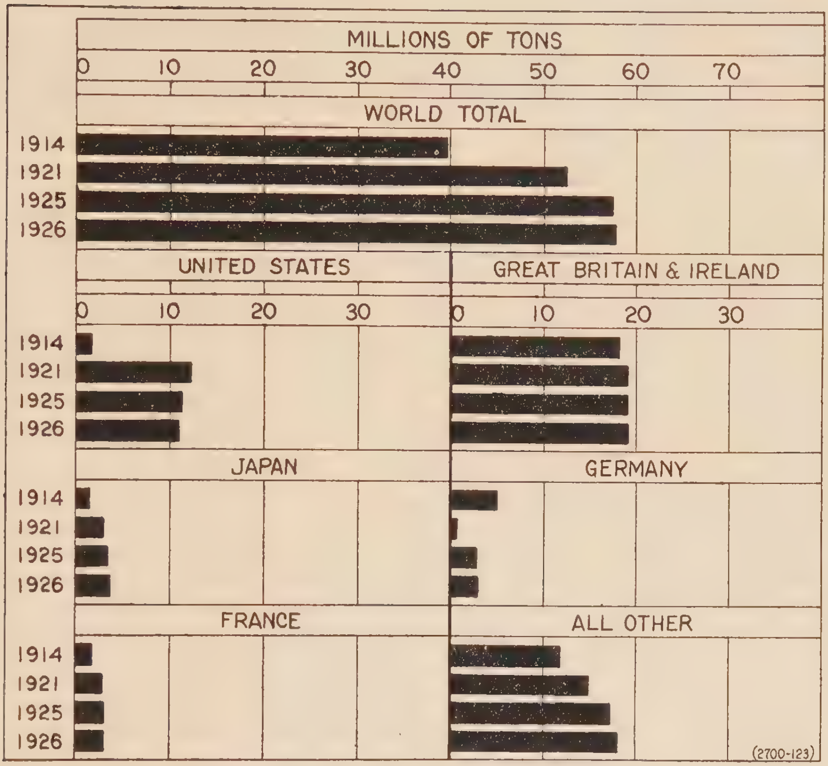


Table 32.—Gross Tonnage of Steel Steam and Motor Vessels of 100 Tons and Over as of June 30

[In thousands of tons]

Country	1914	1921	1922	1923	1924	1925	1926
Total	**39,737**	**52,415**	**55,047**	**56,342**	**56,066**	**57,432**	**57,844**
Great Britain and Ireland	18,348	19,015	18,803	18,857	18,722	19,099	19,083
British dominions [1]	1,402	1,844	2,106	2,136	2,132	2,160	2,259
United States [2]	1,582	12,125	12,260	12,238	11,620	11,442	10,990
France	1,735	2,931	3,205	3,180	3,125	3,209	3,255
Germany	5,000	611	1,730	2,434	2,801	2,941	3,003
Netherlands	1,435	2,191	2,598	2,592	2,520	2,571	2,537
Italy	1,152	2,232	2,447	2,655	2,592	2,814	3,045
Japan	1,457	2,947	3,214	3,297	3,556	3,641	3,729
Norway	1,699	2,192	2,249	2,227	2,258	2,491	2,693
Other	8,174	8,676	8,790	9,178	9,283	9,617	9,891

[1] Does not include Canadian Great Lakes shipping, which totaled 250,000 tons in 1925 and 248,000 tons in 1926.

[2] Does not include United States Great Lakes shipping and Philippine Islands shipping, which totaled 2,301,000 tons in 1925 and 2,391,000 tons in 1926.

Source: Lloyd's Register of Shipping.

Tonnage of World's Merchant Marine.

The world's merchant marine, measured in terms of steel steam and motor vessels (not counting United States and Canadian Great

Lakes tonnage and Philippine Island tonnage) was 57,844,000 gross tons on June 30, 1926, or 412,000 tons more than on the same date a year earlier and 18,107,000 tons greater than in 1914. The more noteworthy changes during the 12 months ended June 30, 1926, were the decrease in the United States fleet of 452,000 tons and the increases in the fleets of Italy and Norway of 231,000 tons and 202,000 tons, respectively.

Oil-Burning Vessels and Tankers.

Of the shipping included in Table 32, oil-burning steamers have increased from 1,310,000 gross tons in 1914 to 18,244,000 tons in 1926. Motor ships have increased during the same period from 234,000 gross tons to 3,493,000 tons. The outstanding development in motor vessels has been the construction of several large passenger ships, notably the *Augustus*, of over 30,000 gross tons, built in Italy.

The world's tanker fleet has grown to almost four times its pre-war tonnage, there being only 1,479,000 gross tons of such shipping in 1914 as compared with 5,665,000 tons in 1926.

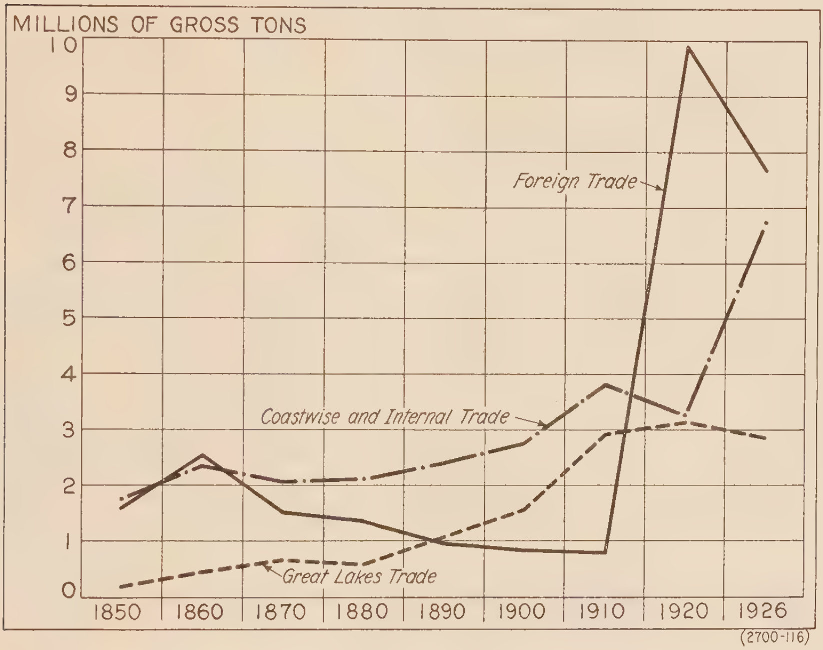
Oversea Shipping Facilities of the World.

Excluding shipping used exclusively or chiefly for internal and coasting traffic, the world's transoceanic and interoceanic shipping services in 1925–26 were almost wholly carried on by 5,575 ocean steamers each of 4,000 gross tons or over, and aggregating 22,210,000 net tons (the "net ton" is 100 cubic feet available for cargo and passengers). Ocean liners of 12 knots speed or over totaled 1,640 of 8,170,000 net tons; ocean liners under 12 knots and owned mainly by the corporations operating the faster steamers numbered 1,735 of 6,316,000 net tons, and there were 700 tank steamers of 2,970,000 net tons. Included with the liners are the merchant fleets of the Governments of the United States, Australia, Brazil, and Canada. These 4,075 liners and tankers are operated by less than 150 highly organized steamship companies, industrial companies, or Government agencies. Most of these individual organizations are interrelated with one or more others financially or associated with others in steamship conferences. The 1,500 general trading steamers of 4,000 gross tons or over, often called "tramps," are owned by many small concerns and individuals and aggregate 4,755,000 net tons.

The preponderance of liners in handling traffic is greater than these figures indicate because the general traders are nearly all of 10 knots speed or less, while liners by higher speed, attaining in some instances 20 knots or more, increase their total and relative carrying power. When speed is taken into the account, the liner organizations furnish 81 per cent of transoceanic and interoceanic shipping facilities.

Of the facilities outlined, steamers between 4,000 and 5,000 gross tons make up less than 17 per cent of the tonnage, and ships of this size find diminishing employment in transoceanic trade. Two-thirds of the tonnage of liners of 12 knots or more and between 4,000 and 5,000 gross tons was built before 1914, while almost the same proportion of such liner tonnage of 5,000 tons or more has been built since that time. Of the world's tonnage of transoceanic steamers of over 6,000 gross tons, 61 per cent was built in the past 10 years.

Chart X.—MERCHANT MARINE OF THE UNITED STATES DOCUMENTED FOR FOREIGN, COASTWISE, AND GREAT LAKES TRADE



American Shipping.

The total tonnage of American merchant vessels was 118 per cent more in 1926 than in 1914, but was 5 per cent less than in 1923, having declined continuously since that year. The tonnage documented for the foreign trade was over seven times as great in 1926 as in 1914, having risen from 14 per cent of the total tonnage to about 45 per cent. During this period the tonnage documented for the coastwise and internal trades increased by 40 per cent, but that documented for the Great Lakes trade remained approximately the same.

The total tonnage was less by 95,000 gross tons in 1926 than in 1925 because of the decline of 436,000 tons in the foreign trade tonnage, that in the Great Lakes trade having remained approximately the same and that in the coastwise and internal trade having increased by 341,000 tons.

Table 33 shows the changes in our merchant marine since 1850. It is noteworthy that the tonnage documented for the foreign trade fell steadily from the year 1860 to 1910 and was less than one-third as great in the last-named year as half a century earlier. A threefold increase over the 1910 figures, however, had taken place even before the United States entered the World War, in 1917, and a considerable increase even up to 1914.

Table 33.—Merchant Marine of the United States

Year ended June 30—	Number of vessels			Gross tonnage (thousands)					
							Documented for—		
	Total[1]	Sailing, etc.[1]	Steam and gas	Total	Sailing, etc.[1]	Steam and gas	Foreign trade[2]	Coastwise and internal trade[3]	Great Lakes[4]
1850				3,535	3,010	526	1,586	1,950	198
1860				5,354	4,486	868	2,546	2,808	468
1870	28,998	25,474	3,524	4,247	3,171	1,075	1,517	2,730	685
1880	24,712	19,995	4,717	4,068	2,856	1,212	1,353	2,715	605
1890	23,467	17,502	5,965	4,424	2,565	1,859	947	3,478	1,063
1900	23,333	16,280	7,053	5,165	2,507	2,658	827	4,338	1,566
1910	25,740	13,288	12,452	7,508	2,608	4,900	792	6,716	2,895
1914	26,943	11,452	15,491	7,929	2,501	5,428	1,076	6,852	2,883
1917	26,397	10,155	16,242	8,871	2,438	6,433	2,446	6,425	2,779
1918	26,711	10,053	16,658	9,925	2,453	7,471	3,604	6,321	2,798
1919	27,513	9,862	17,651	12,907	2,492	10,416	6,670	6,238	3,024
1920	28,183	9,369	18,814	16,324	2,501	13,823	9,929	6,395	3,139
1921	28,012	8,941	19,071	18,282	2,537	15,745	11,082	7,200	2,840
1922	27,358	8,398	18,960	18,463	2,481	15,982	10,725	7,738	2,724
1923	27,017	8,071	18,946	18,285	2,463	15,821	9,073	9,212	2,758
1924	26,575	7,825	18,750	17,741	2,425	15,315	8,797	8,943	2,791
1925	26,367	7,730	18,637	17,406	2,430	14,976	8,155	9,251	2,853
1926	26,343	7,654	18,689	17,311	2,462	14,848	7,719	9,592	2,844

[1] Includes canal boats and barges.
[2] Includes tonnage, formerly considerable but recently insignificant, engaged in whale fisheries.
[3] Includes vessels engaged in fisheries (27,000 tons in 1924).
[4] Included in preceding column.

Source: Bureau of Navigation, Department of Commerce.

Idle Tonnage.

The increase in total world tonnage, resulting largely from the heavy American construction during the war and immediately after, caused the supply of shipping greatly to exceed the demand. Many vessels were, therefore, unable to find employment during the postwar years and remained idle. This situation has greatly improved, however, as world trade has recovered.

Idle steam shipping in the principal maritime countries of the world totaled only 4,076,000 gross tons on January 1, 1927, having decreased by 1,769,000 tons since January 1, 1926. The reduction in the world's laid-up fleet during 1926 was owing, in part, to the breaking up of obsolete vessels, but largely to the increased employment of shipping resulting from the British coal strike. During the period beginning with the latter part of May and ending with the close of November, shipments of coal from the United States to the United Kingdom aggregated nearly 9,200,000 tons.

Idle shipping in the United States was less by 1,244,000 gross tons on January 1, 1927, than on the corresponding date of the preceding year. This total, as well as the totals for most of the other important maritime countries, set a new low postwar record.

Table 34.—Idle Shipping of Principal Maritime Countries

[In thousands of gross tons]

Country	Jan. 1, 1922	Jan. 1, 1923	Jan. 1, 1924	Jan. 1, 1925	Jan. 1, 1926	Jan. 1, 1927
Total	**10,934**	**9,128**	**6,888**	**5,891**	**5,845**	**4,076**
Idle in home country:						
United States, total	5,309	5,328	4,271	4,225	4,120	2,876
Shipping Board	4,314	4,411	3,564	3,664	3,518	2,336
Shipping Board tankers	214	214	163	125	134	56
Other Government owned			3	17	10	27
Privately owned	781	703	541	417	458	457
United Kingdom	1,769	1,010	909	705	613	529
France	1,085	730	450	311	134	118
Italy	585	472	427	136	225	110
Netherlands	327	330	235	65	109	3
Norway	207	53	50	25	22	[1] 37
Sweden	204	22		20	30	9
Greece	170	76	122	24	99	[1] 106
Japan	120	99	29	25	35	48
Belgium	275	170	86	26	21	[1] 14
Denmark	161	17	13		63	20
Spain	530	520	128	60	44	35
Australia	([2])	106	85	166	51	71
Idle in foreign countries	192	195	83	103	279	100

[1] Data as of Oct. 1, 1926.

[2] Not available.

Sources: United States Shipping Board and Bureau of Foreign and Domestic Commerce, Department of Commerce.

Table 35.—Merchant Shipping Under Construction in Principal Maritime Countries [1]

[In thousands of gross tons]

Country	Dec. 31, 1922	Dec. 31, 1923	Dec. 31, 1924	June 30, 1925	Dec. 31, 1925	June 30, 1926	Dec. 31, 1926
Total	**2,953**	**2,444**	**2,470**	**2,370**	**2,070**	**1,970**	**1,933**
Great Britain and Ireland	1,469	1,395	1,297	1,094	885	841	760
United States	139	91	58	92	105	133	151
Italy	211	119	155	213	310	287	239
France	188	110	197	169	167	153	143
Netherlands	143	112	125	101	109	148	145
Japan	94	63	39	60	52	38	43
Germany	416	336	355	407	234	148	211
Other	293	218	244	234	208	222	241

[1] Includes shipping on which construction was suspended.

Source: Lloyd's Register.

Ship Construction.

Merchant vessels under construction in the principal shipbuilding countries of the world aggregated 1,933,000 gross tons on December 31, 1926, or 6.6 per cent less than at the end of the previous year.

(Table 35.) The total for the United States, however, was 151,000 gross tons at the end of 1926, or 43.8 per cent more than it was a year earlier. During the same period there were decreases in Great Britain and Ireland, Italy, France, Japan, and Germany. Of the major shipbuilding countries, only the United States and the Netherlands showed gains.

Table 36.—Shipbuilding: Vessels Built in the United States and Documented for American Shipowners, Years Ended June 30

Yearly average	Number	Gross tons	Yearly average or year	Number	Gross tons	Year	Number	Gross tons
1851–1860	1,466	366,603	1911–1916	1,275	289,461	1922	845	661,232
1861–1870	1,654	299,602	1917	1,279	664,479	1923	770	335,630
1871–1880	1,455	253,800	1918	1,528	1,300,868	1924	1,049	223,968
1881–1890	1,056	230,197	1919	1,953	3,326,621	1925	967	199,846
1891–1900	1,055	235,699	1920	2,067	3,880,639	1926	924	224,673
1901–1910	1,311	418,178	1921	1,361	2,265,115			

Source: Bureau of Navigation.

Motorships.

Great progress has been made in the construction of vessels fitted with internal-combustion engines. The gross tonnage of such vessels being built throughout the world at the end of 1926 totaled 904,000 and represented 47 per cent of all shipping under construction. In point of tonnage, the countries leading in this work were Great Britain and Ireland, Italy, and the Netherlands, in the order named.

The gross tonnage of all motor ships, of 100 gross tons and over, increased from 1,321,000 on June 30, 1923, to 3,197,000 on June 30, 1926. Great Britain and Ireland continue to lead in ownership of such vessels, having 954,000 gross tons. Norway follows with 493,000 tons, Sweden with 289,000 tons, and Germany with 284,000 tons, while the United States ranks fifth with 240,000 tons.

Sales Prices of Ships.

The market value of cargo steamers increased somewhat during 1926, particularly in the second half of the year with the advance in freights following the British coal strike. During that period 11 cargo steamers of 5,000 to 10,000 deadweight tons, not over 5 years old, brought an average price of $35.50 per ton. Very few sales were made in the first half of the year. During the second half of 1925, 8 steamers brought an average price of only $24. The higher average price indicated for 1926 as against 1925 is due in part to an improvement in the freight market and in part to the larger number of comparatively new ships which entered into the computation of the average price for 1926.

Entrances and Clearances.

The amount of space available for cargo and passengers in our foreign trade is shown by the net tonnage of vessels entering and clearing. (Table 37.) The total net tonnage of vessels in foreign trade entering American ports in 1926 was 76,923,000, a new high record. This total was 65 per cent more than the average for 1910–1914, and the tonnage with cargo was greater by 60 per cent. The amount of shipping entering the United States in ballast in 1926 was 6,081,000 net tons more than in the preceding year, largely because of numerous vessels coming empty to the United States to load coal for the United Kingdom. American vessels represented slightly less than one-fourth of the total tonnage entered in the pre-war period, as against 40 per cent in 1925 and 35 per cent in 1926. While the total tonnage clearing in the foreign trade has increased about 70 per cent over the pre-war years, the tonnage with cargo has increased only slightly over 57 per cent. This fact is largely a result of the growth in our imports of petroleum, as vessels in that trade generally must clear from the United States in ballast. The total clearances in 1926 were 79,043,000 tons, exceeding those of 1925 by about 11 per cent.

Table 37.—Net Tonnage of Vessels Entered and Cleared in Foreign Trade

[In thousands of net tons of vessel capacity. Net ton equals 100 cubic feet of space, excluding cabins, machinery, etc.]

Class	All ports							
	1910–1914 [1]	1921–1925 [1]	1921	1922	1923	1924	1925	1926
Total entrances	**46, 619**	**66, 292**	**62, 284**	**65, 191**	**66, 319**	**68, 292**	**69, 378**	**76, 923**
American	11, 328	29, 644	31, 184	31, 738	27, 725	29, 628	27, 947	26, 880
Foreign	35, 291	36, 648	31, 100	33, 453	38, 594	38, 664	41, 431	50, 043
Per cent American	24. 3	44. 8	50. 1	48. 7	41. 8	43. 4	40. 3	35. 0
With cargo (total)	32, 597	47, 946	41, 738	49, 397	48, 986	48, 838	50, 773	52, 237
American	6, 042	21, 846	21, 521	23, 730	21, 125	21, 652	21, 202	20, 510
Foreign	26, 555	26, 000	20, 217	25, 667	27, 861	27, 186	29, 571	31 727
In ballast (total)	14, 022	18, 346	20, 547	15, 794	17, 333	19, 454	18, 605	24, 686
American	5, 286	7, 798	9, 664	8, 008	6, 600	7, 975	6, 745	6, 370
Foreign	8, 736	10, 547	10, 883	7, 786	10, 733	11, 478	11, 859	18, 316
Total seaports	35, 211	52, 934	49, 861	51, 675	52, 775	54, 726	55, 636	63, 756
Total northern and Mexican borders	11, 408	13, 358	12, 423	13, 516	13, 544	13, 565	13, 742	13, 178
Total clearances	**46, 579**	**66, 653**	**62, 665**	**64, 839**	**66, 624**	**68, 910**	**70, 228**	**79, 043**
American	11, 590	29, 554	30, 181	31, 759	27, 932	30, 091	27, 808	28, 532
Foreign	34, 989	37, 098	32, 484	33, 080	38, 692	38, 818	42, 420	50, 511
Per cent American	24. 9	44. 4	48. 2	49. 0	41. 9	43. 7	39. 6	36. 1
With cargo (total)	40, 404	51, 468	48, 677	48, 478	51, 912	53, 720	54, 555	63, 480
American	8, 996	19, 681	19, 627	20, 454	18, 966	20, 465	18, 896	19, 724
Foreign	31, 408	31, 786	29, 050	28, 024	32, 946	33, 255	35, 659	43, 756
In ballast (total)	6, 175	15, 184	13, 988	16, 361	14, 712	15, 190	15, 673	15, 562
American	2, 594	9, 872	10, 554	11, 305	8, 966	9, 626	8, 912	8, 807
Foreign	3, 581	5, 310	3, 434	5, 056	5, 746	5, 564	6, 761	6, 755
Total seaports	34, 965	53, 553	50, 323	51, 774	53, 216	55, 294	57, 160	65, 583
Total northern and Mexican borders	11, 614	13, 099	12, 342	13, 065	13, 408	13, 616	13, 068	13, 458

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[1] Average for the period; data for 1910–1914 are for fiscal years ended June 30.

Source: Bureau of Foreign and Domestic Commerce.

Volume of Water-Borne Foreign Commerce.

The water-borne exports of the United States totaled 68,140,000 tons in 1926, exceeding the 1925 shipments by nearly 42 per cent. Coal exports accounted for the bulk of this increase, resulting from the urgent demand occasioned by the British coal strike. Water-borne imports of the United States also increased in 1926, totaling 44,686,000 tons and exceeding the 1925 receipts by 4.7 per cent. However, receipts of petroleum, the largest import item, remained virtually the same in 1926 as in the previous year. The proportion of traffic moving through Atlantic ports gained enormously. (Table 38.) These ports accommodated about 64 per cent of all imports and nearly 52 per cent of all exports in 1926, a larger proportion than in either of the two preceding years. There was also a very substantial increase in the percentage of exports moving from Pacific ports, but the percentage of imports was about the same as in 1925. Gulf ports handled a smaller share of both the export and the import trade.

Table 38.—Weight of Cargo of Water-Borne Foreign Trade, by Districts

[In thousands of long tons; calendar years]

District	1921	1922	1923	1924	1925	1926
Total imports	**33,185**	**44,682**	**43,296**	**40,899**	**42,686**	**44,686**
North Atlantic district	17,461	26,018	24,270	22,351	23,676	26,449
South Atlantic district	788	1,090	1,560	1,726	2,085	2,165
Gulf district	10,270	11,024	10,029	9,889	8,522	8,184
Pacific district	1,342	1,814	2,524	2,585	2,580	2,712
Great Lakes district	3,324	4,736	4,913	4,348	5,823	5,176
Total exports	**48,640**	**42,502**	**49,080**	**52,261**	**48,091**	**68,140**
North Atlantic district	22,342	18,669	20,714	20,696	19,904	33,994
South Atlantic district	1,147	786	927	822	1,023	1,354
Gulf district	13,132	10,584	10,599	12,805	12,206	13,304
Pacific district	4,440	5,465	8,472	9,360	8,036	11,450
Great Lakes district	7,579	6,998	8,368	8,578	6,922	8,038

Source: Bureau of Research, United States Shipping Board.

The decline in the proportion of ocean-borne dry cargo exported in American-flag vessels continued during 1926, 21 per cent of the total being so carried as against 30 per cent in 1925. (Table 39.) The situation, however, is not so adverse as these figures indicate. The decline in 1926 was largely the result of heavy movements of coal to Great Britain, most of which was carried in British and other foreign tramp vessels. The proportion of imports of dry cargoes carried in American-flag vessels increased in 1926, amounting to 30 per cent as against 28 per cent in the previous year.

Table 39.—Water-Borne Foreign Commerce of the United States: Weight of Cargo and Percentage in American Vessels

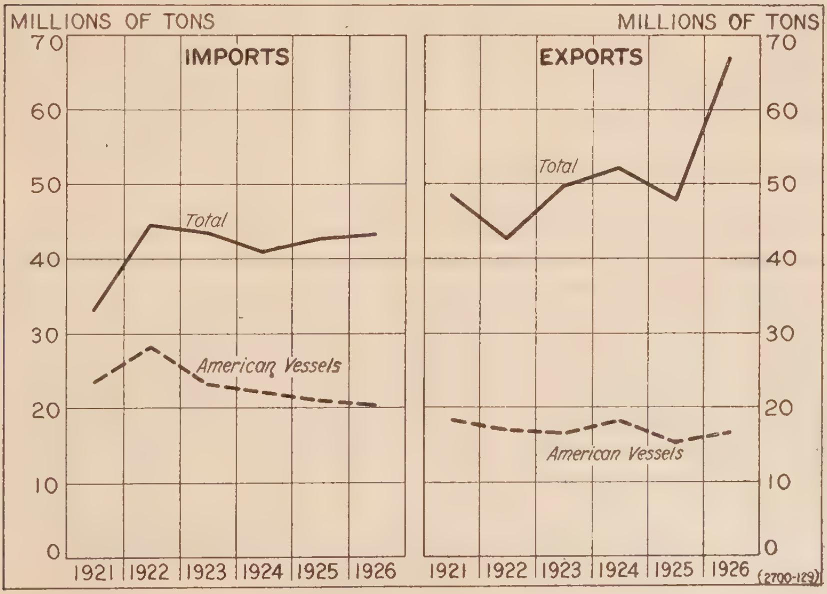
[In thousands of long tons; calendar years]

Item	1921	1922	1923	1924	1925	1926
IMPORTS						
Total weight of cargo	**33, 178**	**44, 780**	**43, 525**	**40, 899**	**42, 683**	**43, 198**
Dry cargo, ocean	12, 357	20, 790	23, 050	21, 894	24, 410	26, 189
Tanker cargo, ocean	17, 362	19, 156	15, 333	14, 657	12, 718	12, 254
Great Lakes	3, 459	4, 834	5, 142	4, 348	5, 555	4, 755
Per cent of total carried by:						
Shipping Board	15	12	7	6	5	6
Other American	56	51	46	48	44	41
British	(1)	19	21	21	22	24
Other foreign	29	18	26	25	29	29
Per cent carried in American vessels:						
Of all cargoes	71	63	53	54	49	47
Of dry cargoes, ocean	44	35	31	32	28	30
Of tanker cargoes, ocean	87	87	77	79	74	76
Of Great Lakes cargoes	87	85	79	84	81	71
EXPORTS						
Total weight of cargo	**48, 653**	**42, 693**	**49, 694**	**52, 261**	**48, 086**	**66, 966**
Dry cargo, ocean	34, 855	29, 064	31, 225	32, 626	31, 000	46, 914
Tanker cargo, ocean	5, 980	6, 440	9, 488	11, 057	10, 340	12, 174
Great Lakes	7, 818	7, 189	8, 981	8, 578	6, 746	7, 878
Per cent of total carried by:						
Shipping Board	15	16	14	13	11	8
Other American	23	24	19	22	21	17
British	(1)	33	38	36	37	42
Other foreign	62	27	29	29	31	33
Per cent carried in American vessels:						
Of all cargoes	38	40	33	35	32	25
Of dry cargoes, ocean	33	34	32	32	30	21
Of tanker cargoes, ocean	40	36	25	32	35	31
Of Great Lakes cargoes	62	63	45	52	40	39

[1] Included in "Other foreign vessels."

Source: Bureau of Research, United States Shipping Board.

Chart XI.—WATER-BORNE COMMERCE



The foreign regions of leading importance in our water-borne export trade in 1926 were the following: United Kingdom, 29 per cent; eastern Canada, 13 per cent; Havre-Hamburg range, 13 per cent; the Orient, 8 per cent; and the east coast of South America, 7 per cent. (Table 40.) Despite the decline in the petroleum receipts from Mexico, that country continued to hold first place in our water-borne import trade in 1926, accounting for 19 per cent. The West Indies ranked next with 18 per cent, eastern Canada with 15 per cent, and the Havre-Hamburg range with 10 per cent.

Table 40.—Water-Borne Foreign Commerce: Weight of Cargo by Origin or Destination

[In thousands of long tons; calendar years]

Country or trade region	Imports				Exports			
	1924	1925	1926	Per cent in American vessels, 1926	1924	1925	1926	Per cent in American vessels, 1926
Total	**40, 899**	**42, 686**	**44, 686**	**47.23**	**52, 261**	**48, 091**	**68, 140**	**25. 12**
United Kingdom	1, 644	1, 894	1, 946	13. 26	8, 229	7, 037	19, 505	10. 44
North Atlantic and Baltic Europe	1, 183	1, 107	1, 014	12. 23	1, 653	1, 784	1, 703	14. 80
Havre-Hamburg range	2, 763	3, 306	4, 498	26. 12	8, 442	7, 689	8, 525	30. 24
South Atlantic Europe	443	474	564	6. 91	1, 255	1, 214	2, 055	14. 45
West Mediterranean	893	1, 132	1, 192	13. 78	4, 225	3, 491	4, 434	11. 84
East Mediterranean and Black Sea	317	409	420	18. 57	625	640	829	19. 90
West Indies	5, 396	6, 585	8, 042	44. 12	3, 252	3, 625	3, 142	41. 85
Mexico	13, 242	10, 495	8, 375	80. 25	1, 037	753	593	47. 22
Central America	1, 103	1, 202	1, 177	37. 38	1, 105	1, 476	1, 755	82. 45
North coast South America	486	724	1, 703	76. 10	252	344	539	48. 24
East coast South America	1, 416	1, 268	1, 682	35. 97	3, 030	2, 823	4, 945	17. 09
West coast South America	2, 689	2, 736	2, 901	55. 39	1, 255	1, 157	1, 306	39. 51
West Africa	197	206	260	37. 31	197	272	474	30. 17
South and East Africa	210	187	250	19. 20	300	390	340	2. 35
Australasia	94	102	108	16. 67	1, 283	1, 386	1, 740	13. 39
East Indies	405	505	550	26. 55	229	264	406	28. 82
Orient	1, 182	1, 315	1, 249	49. 24	5, 140	3, 957	5, 407	34. 10
India, Persian Gulf, Red Sea	750	804	777	29. 60	425	397	453	58. 72
Canada, via Pacific	1, 197	1, 273	1, 350	24. 37	711	696	854	61. 12
Canada, via Great Lakes and Atlantic	5, 289	6, 962	6, 628	53. 82	9, 616	8, 696	9, 135	38. 02

Source: Bureau of Research, United States Shipping Board.

Petroleum normally represents greater weight in both exports and imports than any other commodity. In 1926, however, petroleum ranked first in imports, but coal ranked first in exports, amounting to 32 per cent of the total, while petroleum was relegated to second place, with 24 per cent. Petroleum imports have fallen steadily since 1922. (Table 41.) Exports of wheat and other grains constituted about 12 per cent of the total cargo shipped and lumber nearly 8 per cent. Cotton, wheat flour, iron and steel manufactures, vegetables and vegetable products, meat, fish, and dairy products, and phosphates followed, accounting in weight for 12 per cent of all exports. Imports of sugar ranked next to petroleum and accounted for 10 per cent of the total; iron ore represented nearly 7 per cent;

and logs and lumber 4 per cent. Fruits and nuts, molasses, coal and coke, iron and steel manufactures, and nitrates were next in importance among the imported items.

Table 41.—Ocean-Borne Foreign Commerce: Weight of Cargo by Major Commodities

[In thousands of long tons; Great Lakes traffic excluded; calendar years]

Commodity	Imports				Commodity	Exports			
	1923	1924	1925	1926		1923	1924	1925	1926
Total	**38,383**	**36,551**	**37,428**	**39,511**	**Total**	**40,713**	**43,683**	**41,340**	**60,102**
Vegetables	674	657	712	769	Wheat	4,783	5,360	3,941	5,556
Bananas	1,045	1,170	1,283	1,321	Rye	756	447	493	151
Other fruits and nuts	370	349	408	627	Corn	758	294	189	270
Sugar	3,318	3,631	3,876	4,058	Barley	415	673	869	665
Molasses	963	903	1,300	1,330	Other grains	539	499	597	426
Coffee	651	659	606	668	Wheat flour	1,801	1,866	1,321	1,395
Jute manufactures	310	304	301	349	Vegetables and vegetable products	667	883	913	906
Other fibers and grasses	983	825	882	853	Meat, fish, and dairy products	747	841	835	789
Paper manufactures	404	330	298	332	Fruits and nuts	351	591	506	694
Clay and clay products	580	623	576	718	Sugar	242	245	346	114
Rubber	312	308	397	433	Tobacco and manufactures	274	309	244	271
Coal and coke	1,067	268	651	1,106	Cotton, raw	1,213	1,566	1,779	2,049
Petroleum	14,121	13,614	11,137	11,132	Coal and coke	4,902	4,273	4,676	19,470
Iron ore	2,816	2,036	2,327	2,698	Petroleum and products	11,709	13,739	12,811	14,901
Manganese	364	499	587	675	Iron and steel manufactures n. e. s	1,244	1,220	1,010	1,366
Iron and steel manufactures	574	484	808	1,015	Machinery	337	429	448	492
Copper and manufactures	490	534	457	540	Vehicles	404	450	610	576
Miscellaneous metals	517	544	759	710	Copper and manufactures	320	452	397	394
Hides and skins	255	179	170	169	Lumber	4,157	4,549	4,309	4,738
Logs and lumber	1,269	1,314	1,413	1,566	Sulphur	429	443	533	540
Pulpwood	131	235	283	225	Phosphate	849	795	755	759
Wood pulp	561	767	777	851	Other fertilizers	230	198	184	249
Sulphur and pyrites	277	277	380	371	Chemicals n. e. s	283	263	260	345
Potash	630	635	777	781	Naval stores	369	367	257	290
Nitrates	974	992	1,222	919	All others	2,934	2,931	3,057	2,696
Chemicals n. e. s	329	617	665	714					
Gypsum	391	424	503	716					
All others	4,007	3,373	3,873	3,865					

Source: Bureau of Research, United States Shipping Board.

Panama Canal Traffic.

Traffic through the Panama Canal during the calendar year 1926 was the largest on record and totaled 27,586,000 cargo-tons, as compared with 23,701,000 in 1925 and 25,892,000 in 1924. The decrease in 1925 was accounted for by the large drop in shipments of mineral oils from the west coast of the United States. The traffic from the west coast to the east coast was 69 per cent of the total in 1926 and has been much heavier during each of the past four years than the westbound cargo, a fact attributable chiefly to the large shipments of crude oils and lumber, most of which go to the eastern seaboard of the United States. Traffic by origin and destination (calendar years) is shown in Table 43.

Table 42.—Commercial Traffic Through the Panama Canal

[All figures are cargo tonnage expressed in thousands]

	Year ended June 30—							Calendar year		
	1920	1921	1922	1923	1924	1925	1926	1924	1925	1926
Total	**9,374**	**11,599**	**10,885**	**19,568**	**26,995**	**23,959**	**26,037**	**25,892**	**23,701**	**27,586**
American vessels	4,547	5,163	4,951	11,055	16,554	13,080	13,711	14,666	12,678	14,855
Foreign vessels	4,827	6,436	5,934	8,513	10,340	10,879	12,326	11,226	11,023	12,731
British	2,830	3,738	3,330	4,929	6,052	5,917	6,751	6,353	5,976	6,932
Atlantic to Pacific	4,093	5,892	5,496	7,086	7,860	7,398	8,037	7,541	7,560	8,420
Pacific to Atlantic	5,282	5,707	5,389	12,482	19,135	16,560	18,000	18,351	16,141	19,166

Source: Report of the Governor of the Panama Canal.

Table 43.—Commercial Tonnage Through Panama Canal, by Origin and Destination

[All figures are in cargo tonnage expressed in thousands and relate to years ended December 31. Ton=2,240 pounds]

Origin and destination	Atlantic to Pacific		
	1924	1925	1926
Grand total to:			
West coast of North America	3,408	3,660	3,501
West coast of South America	1,380	1,221	1,197
Asia	1,511	1,326	1,806
Australasia	1,248	1,359	1,491
From east coast of United States to:			
West coast of North America	2,460	2,644	2,403
West coast of South America	397	359	432
Asia	1,445	1,261	1,576
Australasia	684	717	796
From east coast of North America (other than United States) to:			
West coast of North America	171	206	208
West coast of South America	233	128	81
Asia	23	51	215
Australasia	86	133	196
From Europe to:			
West coast of North America	712	753	771
West coast of South America	742	723	674
Asia	29	10	------
Australasia	478	508	498
From east coast of South America and miscellaneous to:			
West coast of North America	64	56	118
West coast of South America	6	9	7
Asia	12	3	13
From United States east coast to United States west coast	2,368	2,468	2,655

Origin and destination	Pacific to Atlantic		
	1924	1925	1926
Grand total to:			
East coast of United States	12,262	10,478	12,077
Other North America	971	816	1,316
Europe	4,981	4,622	5,519
Africa, South America, and miscellaneous	137	225	253
From west coast of North America to:			
East coast of United States	9,402	7,464	8,921
Other North America	662	437	908
Europe	3,075	2,434	3,691
Africa, South America, and miscellaneous	59	125	129
From west coast of South America to:			
East coast of United States	2,585	2,700	2,773
Other North America	224	345	367
Europe	1,571	1,675	1,295
Africa, South America, and miscellaneous	78	100	124
From Australasia to:			
East coast of United States	52	46	76
Other North America	4	20	9
Europe	328	481	520
From Asia to:			
East coast of United States	223	269	307
Other North America	81	14	32
Europe	7	32	13
From United States west coast to United States east coast	8,958	6,992	8,267

Source: The Panama Canal Record.

CIVIL AERONAUTICS

While the year 1925 was noteworthy for a great awakening of American public interest in the question of aeronautics and aeronautic development, 1926 was the most important for American civil aeronautics since the invention of the airplane. The outstanding event during the year was the passage by Congress of the Bingham-Parker bill, approved May 20, 1926, known as the air commerce act of 1926.

The Air Commerce Act.

Under this act the Secretary of Commerce is charged with the encouragement and regulation of the use of aircraft in commerce, immediate control being under an Assistant Secretary for Aeronautics appointed by the President. The duties of the Assistant Secretary for Aeronautics are to encourage the establishment of airports, airways, and other air-navigation facilities; study the possibilities in the development of air commerce, industry, and trades; to establish and maintain civil airways, intermediate landing fields, lights, signal and radio direction-finding apparatus, and other structures and facilities excepting air ports used as aids to navigation; to chart airways and publish air maps; to recommend to the Secretary of Agriculture necessary meteorological service; to collect and disseminate information relative to air commerce and the state of the art; to advise with other executive governmental agencies in research and development of air-navigation facilities and transfer of funds; to investigate, record, and publish causes of accidents; and to exchange with foreign governments civil air information.

The Assistant Secretary for Aeronautics may apply to civil aircraft, to such extent as he deems advisable, the laws and regulations relative to entry and clearance of vessels. Upon agreement with the Postmaster General, the Secretary of Commerce may take over the airways and air-navigation facilities now under jurisdiction of the Post Office Department (save airports and terminals, which may be transferred to the jurisdiction of municipalities concerned under arrangement subject to approval by the President).

Under the act the Assistant Secretary for Aeronautics will identify aircraft, license aircraft and airmen, and suspend or revoke licenses of aircraft or airmen; periodically examine aircraft; rate air-navigation facilities; establish air-traffic rules; and cooperate with other Government agencies along certain specified lines. Penalties are also provided for violations of regulations promulgated under the air commerce act.

Activities of Aeronautics Branch.

The first important accomplishment of the Aeronautics Branch was the promulgation of the Air Commerce Regulations, effective

December 31, 1926. These regulations were arrived at after repeated conferences with organizations and individuals actively interested in aeronautics. They provide in detail for the licensing of aircraft, the marking of licensed and unlicensed aircraft, requirements in the operation of aircraft, the licensing of pilots and mechanics, and air-traffic rules.

A second important development was the lighting of established airways. With the established airways of the air-mail service as a nucleus, an excellent beginning was made during the year. So far as appropriations have permitted, approved airway beacons have been installed at intervals of about 10 miles, along the most necessary sections of the airways, with lighted intermediate fields at 30-mile spacing. The program for 1926–27 covered 2,680 miles of lighting facilities, covering 8 airways, as shown in the following statement:

	Total miles	Lighted miles
New York–Boston	220	220
St. Louis–Chicago	277	277
Dallas–Chicago	995	995
Los Angeles–Salt Lake City	589	278
Elko–Pasco	424	110
Los Angeles–Seattle	1, 073	400
Chicago–Twin Cities	384	200
Pueblo–Cheyenne	200	200
Total	4, 162	2, 680

In 1927–28 it is planned to light 3,400 additional miles.

Aids to Aerial Navigation.

Other aids to aerial navigation upon which the department is working are: A weather communication system between station stops, the radiobeacon, radiotelephone for direct communication with the pilot in flight to apprise him of conditions ahead along the route, the radio field localizer to give the pilot the exact location of a field in a fog and to assist him in alighting, and other devices.

It is only by the establishment and operation of such aids that aerial navigation can be successfully carried on at night and in adverse weather.

Weather Bureau Reports.

The most important information given the pilot is that concerning the weather. Under the air commerce act, the Weather Bureau established in 1926 twenty-two new "upper air" stations along the airways, with trained personnel at the airports, where practicable. In addition to the regular Weather Bureau stations, a number of special airway meteorological stations were established at other points along the routes and this number will be increased in succeeding years. By telephone or telegraph the next airport in both directions is furnished current weather information, not only of general conditions and those in sections of the country flown over, but in many cases immediate forecasts through the ensuing few hours.

The present and immediately proposed airways and the transcontinental Government lines are now being served by a net of 50 Weather Bureau offices (regular) and 27 Weather Bureau and 3 Signal Corps upper air stations, distributed along the airways. In addition to the Signal Corps stations mentioned above, serving the airways on which they lie, there are 17 other Signal Corps upper-air stations and 8 Navy stations. Cooperation with these is possible when proposed airways touch cities at or near which these stations are located.

There are also at present nine other Weather Bureau upper-air stations so located that they serve the present or immediately proposed airways as to general information, in addition to their regular work. Some of these may eventually be transferred to places where they can serve airways directly, without detracting from the service for which they are now being maintained.

In addition, the caretakers of the Department of Commerce at intermediate field sites, located at critical points along the airways, can furnish, by telephone, data to be used in connection with weather forecasts. They may also be called upon to signal pilots to land in the event of sudden storm warnings received after departure from their last station. These intermediate fields will provide means for reporting conditions or other information or halting traffic throughout the air transport system.

Airports.

The department is working with municipal organizations for the establishment of an airport in every large city. The air commerce act provides that airports shall not be owned or operated by the Federal authorities, and that no exclusive rights shall be granted for the use of any civil airway, airport, or other navigation aid owned by the United States. The airport should, naturally, be as large as possible, easy of approach from four directions, and reached by all methods of ordinary transportation. Obviously, it should provide all facilities necessary to aircraft operation. It should be planned to care for future rapid increases in air transport and other air operations.

Although the airports can not be owned or maintained by the Department of Commerce, the department is charged with the encouragement of their establishment and may rate airports as navigation aids. General information on the construction and equipment of airports has been prepared by the department for distribution.

Along established air routes, at intervals of about 30 miles between the airports, the Department of Commerce lighted intermediate fields are located. These are leased from their owners and the property will not be used for any purpose inconsistent with that of landing and taking off by aircraft. The boundaries and obstructions of each field are indicated by electric lamps in waterproof fixtures on standards, power being furnished from commercial current or small gasoline generating sets. A standard beacon light is placed at every such intermediate field.

Airways.

Perhaps the first advantage of an airway is the expediting of mail. The selection of a route for such a purpose naturally comes within the scope of the Postmaster General. Air mail alone has thus far been insufficient to support air transport. Full loads have not been secured. With night flying made possible and with extension of existing routes, it will be possible to take advantage of all the benefits of air transport. With the public realization of the air mail value, it is expected that full and paying loads will be forthcoming.

Much of the advantage of the airplane is lost when the routes are flown in daylight hours only, and the cost of lighting an airway is so great that the permanency of any proposed route must be carefully considered.

The Department of Commerce has also a prime interest in new airways. It can not be expected to designate an airway or provide air navigation aids until demand warrants.

The Year's Air Commerce.

During 1926 a great contract air mail system developed, the nucleus of a near-future air transportation net. In addition to the transcontinental and the New York-Chicago night route, both operated for the Government by the Postmaster General, the airway system consists of routes operated by private enterprise under contracts with the Post Office Department. The mileage given below is that necessitated by the schedule, from the date of operation to the end of 1926. It is obvious that other routes will be designated as air transport demands warrant.

Only the Government and foreign contract routes operated a full year. The other contract routes began at various dates, the earliest being February 15, 1926.

Table 44.—Air Mail: Routes and Air Mileage Scheduled, 1926

Route	Mileage of route	Scheduled airplane mileage
GOVERNMENT ROUTE		
Transcontinental	2,665	[1] 1,860,180
New York-Chicago	770	[1] 432,083
CONTRACT ROUTE		
New York-Boston	220	69,018
St. Louis-Chicago	277	102,885
Dallas-Chicago	995	463,670
Los Angeles-Salt Lake City	589	303,924
Elko-Pasco	424	195,552
Detroit-Cleveland	148	49,764
CONTRACT ROUTE—continued		
Detroit-Chicago	278	152,028
Los Angeles-Seattle	1,073	196,824
Chicago-Minneapolis-St. Paul	384	113,555
Miami-Atlanta	740	248,246
Pueblo-Cheyenne	200	84,400
Seattle-Victoria	78	9,833
Pilottown-New Orleans	80	21,360
Detroit-Grand Rapids	140	31,680
Philadelphia-Washington-Norfolk [2]	234	93,770

[1] Actual airplane mileage.

[2] Route discontinued.

Source: Aeronautics Branch Department of Commerce.

Nearly $17,500,000 are invested, or to be invested, in real estate and improvements at the 68 station stops on the scheduled 17 routes. More than $5,000,000 were invested in the contract air mail system during the first year, 1926, and this sum will be rapidly increased as new vehicles are added for passenger service.

The first necessity of these airways is sufficient air mail. The next is the development of express and passenger traffic of sufficient volume to make all of these enterprises pay and thereby insure their continuance. Table 45 shows the weight of mail carried in 1926, the rates per pound, and the total amounts paid contractors.

Table 45.—Air Mail Carried, 1926

Route	Months mail carried	Rate per pound	Pounds carried	Amount paid contractors
Transcontinental[1]	12	--------	286,028	----------
New York-Chicago overnight[1]	12	--------	147,621	----------
FEEDERS[2]				
New York-Boston	7	$3.00	6,630	$19,890
St. Louis-Chicago	9	2.53	22,718	57,476
Dallas-Chicago	8	3.00	63,191	189,573
Los Angeles-Salt Lake	9	3.00	76,564	226,692
Elko-Pasco	9	3.00	33,241	99,723
Detroit-Cleveland	11	1.08	1,721	1,858
Detroit-Chicago	11	1.08	5,830	6,296
Chicago-Twin Cities	7	2.75	7,235	19,896
Pueblo-Cheyenne	8	3.00	17,135	51,405
NONFEEDERS				
Los Angeles-Seattle	5	(3)	19,645	115,905
Miami-Atlanta	9	3.00	14,336	43,008
Seattle-Victoria	12	[4] 200.00	55,839	24,700
Pilottown-New Orleans	12	[4] 100.00	51,696	53,400
Philadelphia-Washington-Norfolk	5	3.00	1,425	4,275
Detroit-Grand Rapids	--------	3.00	----------	----------

[1] These routes to be flown under private ownerships in 1927.

[2] Eighty-five per cent of feeder poundage goes over the transcontinental and New York-Chicago overnight, and that much is, therefore, included in the two first items.

[3] Up to 1,000 miles $2.81; over 1,000 miles, $3.09.

[4] Rate per round trip.

Source: Post Office Department.

EXPRESS AND PASSENGERS, 1926

Six lines attempted scheduled passenger business in 1926. The fare averaged 14 cents a passenger-mile. Other lines preferred to wait out a trial period of air operations. In 1927, it is expected, additional lines will carry passengers.

Some small amount of express was carried in 1926, but no determined attempt was made to build up this business. The Ford Motor Co. carried a tremendous amount of air freight, but it was not public matter.

The American Railway Express Co. and National Air Transport have already contracted for an express service beginning in 1927, and other air lines will follow.

The 1926 express and passenger business on the air mail contract routes is shown in the following table:

Route	Mileage of route	Express carried, pounds	Number of passengers carried
Los Angeles-Salt Lake City	589	300	258
Los Angeles-Seattle	1,073		33
Miami-Atlanta	740		939
Detroit-Grand Rapids	140	3,155	657
Pueblo-Cheyenne	200	100	200
Philadelphia-Washington-Norfolk	234		3,695
Detroit-Cleveland	148	1,033,338	
Detroit-Chicago	278	696,197	
Total	3,402	1,733,090	5,782

COMMUNICATION

RADIO

The Radio Act of 1927.

The increase of radio broadcasting stations in the United States resulted in a chaotic situation for listeners and led to strong public demand for improvement in broadcasting conditions through Government regulation and elimination of some of the stations. The radio act of 1927 was finally passed on February 23, 1927 (H. R. 9971). This act created a Federal Radio Commission of five commissioners appointed by the President, by and with the advice and consent of the Senate, one of whom is to be designated by the President as chairman. The commission, which is to work in close cooperation with the Secretary of Commerce, is empowered to classify radio stations, prescribe the nature of the service to be rendered by each class of licensed stations and each station within any class, assign bands of frequencies or wave lengths, determine the location of classes of stations or individual stations, regulate the kind of apparatus to be used, make such regulations not inconsistent with law as it may deem necessary to prevent interference between stations, and to carry out the provisions of the act.

Radio Broadcasting Service.

The number of radio broadcasting stations in the United States increased materially during the year. On December 31, 1926, there were in operation 719 such stations, as compared with 528 at the end of 1925. Of those, 405 were below 500 watts and 314 from 500 watts to 6,000 watts. It is estimated that this number exceeds that of the other countries of the world put together. The number of receiving sets is estimated at 6,500,000 for the United States at the close of the year. This indicates an increase of 30 per cent over 1925.

Radio Communication.

The Radio Corporation of America reports that direct international radio communications circuits are operated to Great Britain, France, Germany, Italy, Holland, Norway, Sweden, Poland, Argentina, Brazil, Hawaii, Japan, French Indo-China, and the Dutch East Indies.

Commercial photoradiogram service was inaugurated between San Francisco and Hawaii, and between New York and London. News pictures, fashion sketches, cartoons, advertisements, documents, and other facsimile matter are transmitted.

The Marconi "beam" system of directive, high-speed transmission is being installed on the Radio Corporation New York-London circuit.

Radiogram service to ships at sea and on the Great Lakes increased in volume. Radio stations on 822 ships are controlled by the Radio Corporation. The program of modernizing these shipboard stations will be completed in 1927. The gross receipts of ship-to-shore and transoceanic operations of the company in recent years are shown in the following table:

Service	1921	1922	1923	1924	1925	1926
Ship-to-shore	$553, 300	$630, 000	$738, 140	$742, 345	$735, 179	$828. 167
Transoceanic	2, 139, 000	2. 914, 000	3, 191, 558	3, 358. 584	3, 418, 179	3, 599. 680

Source: Annual report of the Radio Corporation of America.

The Radio Corporation of America radio direction finder has proved a great aid to navigation. The largest order ever placed for apparatus of this kind, involving the equipment of 100 vessels of one ownership, was secured in 1926.

TELEPHONES

The year 1926 was the fiftieth anniversary of the birth of the telephone. During the year 781,000 telephones were added to the Bell Telephone System, bringing the total number in the United States interconnected in and with the system at the end of the year to 17,574,000, of which 4,758,000 were owned by independent connecting companies or were on independently owned connecting rural lines. (Table 46.) More than 664,000 miles of toll wire were added during 1926, this being the largest number of miles added in any one year. The system now owns 6,297,000 miles of toll wire connecting 70,000 cities, towns, and villages throughout the country.

Table 46.—American Telephone & Telegraph Co. and Associated Operating Companies: Comparative Statistics

NOTE.—All figures in thousands of miles, telephones, messages, or dollars. Mileage and number of telephones relate to December 31.

Item	1910	1915	1920	1922	1923	1924	1925	1926
Total wire mileage	11, 642	18, 506	25, 377	30, 617	34, 524	39, 894	45, 474	50, 861
Telephones owned	3, 933	5, 968	8, 334	9, 515	10, 406	11, 242	12, 035	12, 816
Connected telephones owned by other companies	1, 950	3, 204	4, 268	4, 536	4, 594	4, 664	4, 685	4, 758
Exchange messages daily	21, 681	25, 184	31, 835	36, 831	41, 109	43, 981	46, 702	49, 980
Toll messages daily	603	819	1, 327	1, 523	1, 683	1, 835	2, 098	2, 375
Gross revenue	165, 613	239, 910	461, 135	564, 038	623, 116	677, 903	761, 219	844, 546
Expenses and taxes	114, 618	173, 728	381, 626	439, 546	485, 740	529, 126	578, 776	639, 676
Net revenue	50, 994	66, 182	79, 509	124, 492	137, 376	148, 777	182, 444	204, 870

Source: Annual reports of the American Telephone & Telegraph Co.

An additional transcontinental telephone line was completed to the Pacific coast in 1926, making a total of three such lines now in operation.

During 1926 an adjustment in long-distance rates was made by the American Telephone & Telegraph Co. amounting to a reduction of above $3,000,000 annually.

In 1915 the American Telephone & Telegraph Co., for the first time, transmitted by wireless spoken words across the Atlantic to Paris and across our continent and out into the Pacific as far as Hawaii. This experiment led to further development, and in January, 1927, regular commercial transoceanic radiotelephone service was inaugurated between New York and London, a most important step forward in the art of telephone communications.

The service for the transmission of pictures by wire, inaugurated in 1925, has been extended to Boston, Cleveland, St. Louis, Atlanta, and Los Angeles, so that this service is now commercially available between these cities in addition to New York, Chicago, and San Francisco.

At the end of the year 1,975,000 telephones, or 15 per cent of the total directly owned telephones of the Bell system, were served by machine switching central offices. This machine switching equipment is being installed where new switchboard equipment is needed and where consideration of the circumstances makes its use advisable.

The United States operates 62 per cent of the world's telephones, Europe being second with 26 per cent.

LAND TELEGRAPHS

The Western Union Telegraph Co. invested $17,731,000 in plant additions and betterments in 1926, the largest property investment ever made by the company in any one year. The automatic multiplex telegraph system, superseding manual operation and providing increased circuit capacity, was extended so that 66 per cent of the company's land-line telegraph business is now handled automatically.

On December 31, 1926, the Western Union system comprised 213,367 miles of pole lines; 1,632,954 miles of wire, of which 59 per cent was copper; 3,324 miles of land-line cable; 28,821 nautical miles of ocean cables; and 24,688 telegraph offices.

OCEAN CABLES

One of the outstanding events of the year in the communication world was the laying of the "permalloy" cable by the Western Union Telegraph Co. from Cornwall to New York. With the new cable a speed of nearly 2,500 letters per minute is possible as compared to 280 letters a minute over the old type cable. The increase in speed is achieved by "loading" or increasing the inductance of the copper conductor. Two sections of the cable were laid, one crossing from Sennen Cove to Newfoundland, and the other from Newfoundland to New York.

An outstanding achievement in the field of cables was the establishment of the new main land-line terminal office in New York in the Commercial Cable Company building, which is an example of modern communication engineering and has already resulted in greatly expedited service. The company continued its program of modernizing operating methods on land-line systems by installation of machine telegraphy in place of the Morse system, with resulting increase of efficiency. Two main cables were diverted from Canso, Nova Scotia, to St. Johns, Newfoundland, which, with the insertion of automatic relays, increased carrying capacity by about 40 per cent.

The laying of the new cable of the German Atlantic Cable Co. between Emden, Germany, and the Azores, where it connects with American cables, was completed during the year. It restores direct cable communication between Germany and North America which was interrupted in 1914. The company extended its operations to Mexico and now renders a competitive telegraph and cable service to and from that country.

All America Cables (Inc.), completed the work of triplicating its system, begun in 1924, so that it now owns three duplexed cables from New York to Buenos Aires. During the past year three new cables were laid at a cost of approximately $2,000,000, as follows: An 800-mile cable from Cuba to Panama; an 844-mile cable from Callao, Peru, to Iquique, Chile; and a 984-mile cable from Iquique to Valparaiso, Chile. This system now comprises 31,800 miles as compared to 18,950 miles in 1914.

BANKING AND FINANCE

SUMMARY.—Business activity in the United States during 1926 was greater than in 1925, itself a record-breaking year; but the increase over the preceding year was less than in 1925. These increases were reflected, as usual, in the financial sphere. Financial operations during 1926 established many new high records, but the rate of growth was generally slower than during 1925. This is true, also, when the appreciation of the dollar during 1926 is considered.

From the banking viewpoint, the year was one of sound but rather uneventful growth. There was no credit inflation. Money rates, including the Federal Reserve bank rates, moved hardly at all; despite sharp fluctuations on the stock market, call rates were phenomenally steady. The ratio of bank investments to bank loans, a factor rather vigilantly watched in recent years, declined negligibly, despite the growing ratio of time deposits to demand deposits. The Federal reserve ratio rose somewhat, declined, and closed the year with only a negligible net change. The volume of bankers' acceptances decreased fractionally. Debits to individual accounts were higher in each month of 1926, except October and November, than in the corresponding month of 1925.

The international gold movement was the smallest since 1920, and there was very little change in the amount of money in circulation, although commodity prices declined almost 5 per cent.

The year opened with security prices at a record high level. Despite the exceedingly violent reaction in the latter part of February which continued through March and a less drastic break in October, the year ended with prices of industrial stocks at approximately the opening level and with rails far above it. Bond prices likewise established new high levels. The volume of stock transfers on the New York exchange was only 1 per cent less than in the record-breaking year 1925.

New life insurance paid for during 1926 amounted to $16,000,000,000, establishing a new high record, and there was also a healthy growth in other forms of savings during the year. Capital issues totaled about $7,400,000,000, a larger amount than in any earlier year; and our growth as a creditor nation was seen in a new record volume of foreign securities publicly offered in the United States.

Currency reconstruction in Europe continued. The three franc exchanges of France, Belgium, and Italy fluctuated disastrously during most of 1926, but none lost ground for the year as a whole, and Belgium achieved a gold standard in October. Silver, which was quite stable in 1925, dropped sharply in the first 10 months of 1926, but rallied slightly at the close of the year.

Federal Government finance prospered again—with a surplus for the seventh successive year, further tax reduction, and very important debt retirements. Governmental expenditures increased by about 1½ per cent. The public debt was reduced by $1,173,000,000 in 1926 and at the close of the year was about $7,500,000,000 less than the peak of 1919.

BANKING SITUATION

Growth of American Banks.

The growth of American banking enterprise in general is seen perhaps best in the statistics of the total resources of "all reporting banks." (Table 1.) These reporting banks include savings banks, trust companies, and private banks, but do not include the 12 reserve banks, as the inclusion of their total resources would be largely duplication.

Table 1.—Principal Items of Resources and Liabilities of National and All Other Reporting Banks Except Federal Reserve Banks, on or About June 30

[In millions of dollars]

Item	1913	1919	1920	1921	1922	1923	1924	1925	1926
Capital, surplus, and undivided profits [1]	4,347	5,445	6,089	6,357	6,575	6,806	7,053	7,411	7,873
National banks	2,046	2,473	2,757	2,796	2,848	2,876	2,916	3,030	3,154
State banks, etc.[2]	2,301	2,972	3,332	3,560	3,727	3,930	4,137	4,380	4,719
Deposits (individual)	17,279	32,665	37,315	34,845	37,194	40,034	42,954	46,766	48,882
National banks	5,831	11,891	13,705	12,406	13,264	14,043	14,853	16,355	17,092
State banks, etc.[2]	11,449	20,774	23,610	22,439	23,930	25,991	28,101	30,411	31,790
Loans and discounts [3]	14,627	25,349	31,317	29,014	27,935	30,475	31,484	33,934	36,283
National banks	6,162	11,288	14,053	12,253	11,434	12,015	12,125	12,860	13,660
State banks, etc.[2]	8,465	14,062	17,264	16,761	16,501	18,459	19,359	21,074	22,623
Investments	5,407	12,230	11,388	11,382	12,548	13,673	14,229	15,400	15,815
National banks	1,890	5,052	4,186	4,025	4,563	5,070	5,142	5,730	5,842
State banks, etc.[2]	3,518	7,178	7,201	7,357	7,984	8,603	9,086	9,670	9,973
Total resources	25,712	47,615	53,079	49,671	50,425	54,035	57,145	62,057	64,893
National banks	11,037	21,235	23,411	20,518	20,706	21,512	22,566	24,351	25,316
State banks, etc.[2]	14,675	26,381	29,668	29,154	29,719	32,523	34,579	37,706	39,578

[1] Includes reserve for taxes, interest, etc., accrued.
[2] Includes State (commercial), savings, private banks, and loan and trust companies.
[3] Includes overdrafts and also acceptances reported by National banks.
Source: Comptroller of the Currency, Treasury Department.

In all recent years, with the single exception of 1921, the total resources of reporting banks have steadily grown. Since 1913, they have grown by almost exactly 150 per cent, and even if allowance is made for the lower purchasing power of the dollar the growth has been about 60 per cent. During the fiscal year 1926 total resources of these banks increased by $2,836,000,000, or 4.6 per cent. The purchasing power of gold having risen in this period, the intrinsic growth was greater than these figures indicate. It will be noted that each of the balance-sheet items increased in 1926; investments increased least, about 2½ per cent, and loans and discounts increased most, by nearly 7 per cent. This, of itself, suggests enhanced liquidity of earning assets.

Every item of Table 1 shows somewhat less rapid growth of national banks than of other banks in 1926, but the greatest difference between the two classes of banks appears in the capital item. This indicates that "other banks" were increasing their capital faster than their business.

The growth of American banking during the past 35 years has been remarkable; the number of banks in 1926 was three times as great as the average for 1891–1895, while the volume of loans and discounts multiplied ninefold, that of securities elevenfold and that of individual deposits tenfold.

Table 2.—Certain Principal Resources and Liabilities of All Reporting Banks Other Than Federal Reserve Banks

[Amounts in millions of dollars]

Yearly average or year [1]	Number of banks	Loans and discounts [2]	Securities held	Individual deposits [3]	Year [1]	Number of banks	Loans and discounts [2]	Securities held	Individual deposits [3]
1891–1895	9,359	4,210	1,368	4,612	1913	25,993	14,568	5,407	17,279
1896–1900	9,705	4,773	1,989	5,947	1919	29,123	25,255	12,230	32,665
1901–1905	13,755	7,625	3,381	9,694	1920	30,139	31,208	11,388	37,315
1906–1910	20,923	10,948	4,456	13,498	1921	30,812	28,932	11,382	34,845
1911–1915	25,881	14,491	5,457	17,399	1922	30,389	27,860	12,548	37,194
1916–1920	28,716	23,586	9,632	29,269	1923	30,178	30,417	13,673	40,034
1921–1925	29,914	30,504	13,446	40,359	1924	29,348	31,428	14,229	42,954
1910	23,095	12,459	4,723	15,283	1925	28,841	33,884	15,400	46,766
1911	24,392	12,983	5,052	15,654	1926	28,146	36,233	15,815	48,882
1912	25,195	13,892	5,359	16,776					

[1] The yearly data are as of June 30 in practically every year.

[2] Including rediscounts; and acceptances reported by national banks.

[3] Beginning 1911, includes dividends unpaid and excludes certified checks and cashiers' checks; also includes postal savings beginning 1913.

Source: Comptroller of the Currency, Treasury Department.

Since 1921 there has been a net reduction each year in the number of banks, the total decrease being 2,666. This has resulted partly from mergers and partly from bank failures. With the increased number of very large nonbanking corporations, many financiers believe there is need of larger and larger banks. Mergers have been facilitated by legislation permitting branch banking.

NATIONAL BANKS

There were over 7,900 national banks at the end of 1926, with total recources of $25,684,000,000 (Table 3), which constituted almost 40 per cent of the resources of all American banks. During 1926 the number of national banks diminished by about 170, or by more than 2 per cent despite the fact that about 160 new banks were added to the system. Mergers accounted for a reduction of some 30 banks, about 170 liquidated voluntarily, and 125 suspended payments. More than three-fifths of the banks of all kinds that failed last year had a capital stock of $25,000 or less and were located in villages having a population of less than 1,000. Although total bank suspensions increased by 344 in 1926, national bank suspensions increased by only 14.

Time deposits in national banks increased by 9 per cent over 1925, while demand deposits increased by only 2.9 per cent. The corresponding rates of increase during the previous year were 9.8 per cent and 6.2 per cent. This tendency to increase time deposits rather than demand deposits which has been evident for a number of years reflects the liquidity of trade and industry, which instead of borrowing at the bank (creating demand deposits) have virtually carried cash reserves in the form of time deposits. Any increase in the ratio of time to demand deposits, or any important growth in the capital and surplus of banks, tends to increase the ratio of investments to loans and discounts; but that ratio has ranged between 42 and 44 per cent ever since 1922. National-bank capital, surplus and undivided profits, and time deposits increased by $663,000,000 during the fiscal year, while securities held by national banks increased by only $112,000,000. (Table 1.) Securities held by banks operating under State charters, likewise, increased by less than the increase of their capital account.

Table 3.—National Banks: Number and Principal Resources and Liabilities

[Amounts in millions of dollars. For wholesale price index, 1913=100]

Yearly average or year [1]	Number of banks	Total resources	Loans and discounts [2]	Capital	Surplus and undivided profits	Demand deposits [3]	Time deposits [4]	National bank circulation	Wholesale price index [5]
1911–1915	7,467	11,194	6,224	1,051	973	5,223	720	754	98.2
1916–1920	7,774	19,011	10,506	1,129	1,222	8,584	2,596	678	186.2
1921–1925	8,159	22,050	12,052	1,325	1,608	9,580	4,834	707	151.6
1913	7,488	10,877	6,187	1,056	985	5,226	553	724	100.0
1919	7,821	22,056	11,542	1,138	1,301	10,270	2,921	682	206.4
1920	8,093	23,176	13,724	1,248	1,456	10,089	3,560	693	226.2
1921	8,155	19,719	11,695	1,276	1,566	8,463	3,681	705	146.9
1922	8,240	20,926	11,248	1,307	1,581	9,416	4,169	727	148.8
1923	8,239	21,713	11,948	1,332	1,591	9,433	4,864	731	153.7
1924	8,074	23,323	12,222	1,333	1,631	9,984	5,461	724	149.7
1925	8,085	24,570	13,149	1,375	1,669	10,603	5,994	649	158.7
1926	7,912	25,684	13,583	1,411	1,694	10,907	6,533	646	151.0

[1] As of about Sept. 1 prior to 1924; report of Oct. 10 for 1924, Sept. 28 for 1925, and Dec. 31 for 1926.
[2] Includes rediscounts and overdrafts.
[3] Includes United States deposits and dividends unpaid; excludes certified and cashiers' checks.
[4] Includes postal savings.
[5] Average for calendar year.

Source: Comptroller of the Currency, Treasury Department.

FEDERAL RESERVE SYSTEM

Federal Reserve Banks.

Table 4 is a compilation of selected items from the balance sheets of the 12 regional banks of the Federal reserve system.

There was no important inflation or deflation in general business during 1926, and our international gold movement was the smallest since 1920. Accordingly the net changes in the combined balance sheets of these 12 banks were comparatively small. Member bank reserve deposits diminished by less than 1 per cent, Federal reserve notes in circulation increased by less than 1 per cent and total reserves against notes and deposits increased 4 per cent. Holdings of bills bought in the open market increased by less than 2 per cent, while holdings of Government securities decreased by 16 per cent. Discounts were practically unchanged. The reserve ratio rose during the first six months of 1926 from 69 per cent to above 75.3 per cent, but showed a steady decline in the last half of the year, reaching 71.4 per cent, on December 31.

Although most American banking statistics for 1925 and 1926 established new high records, the business of Federal reserve banks was much smaller than at the peak of postwar inflation, in 1920. At that time the earning assets of reserve banks were considerably more than twice as much as at present.

Table 4.—Principal Assets and Liabilities of Federal Reserve Banks

[Amounts in millions of dollars. Total bills and securities includes minor items not specified]

Date	Bills and securities				Total reserves for notes and deposits [1]	Member bank reserve deposits	Federal reserve notes in circulation	Federal reserve ratio (per cent) [2]
	Total	Bills discounted	Bills bought in open market	United States Government securities				
Dec. 31:								
1917 [3]	1,064	681	275	107	1.721	1,453	1,246	63.6
1918 [3]	2,318	1,703	304	312	2.146	1,587	2,685	50.6
1919 [3]	3,080	2,195	585	300	2,136	1,787	3,058	44.8
1920 [3]	3,263	2,719	256	288	2,249	1,749	3,345	45.4
1921	1,524	1,144	145	234	3,010	1,753	2,409	70.2
1922	1,326	618	272	436	3,177	1,934	2,396	72.7
1923	1,211	723	355	134	3,169	1,898	2,247	75.3
1924	1,249	314	387	540	3,047	2,220	1,862	73.0
1925	1,395	635	374	375	2,824	2,212	1,838	69.0
1926	1,335	637	381	315	2,948	2,194	1,851	71.4
1924								
Mar. 31	1,009	518	228	263	3,194	1,885	2,003	79.7
June 30	803	334	37	431	3,239	1,944	1,861	83.7
Sept. 30	986	276	132	576	3,133	2,111	1,745	79.5
Dec. 31	1,249	314	387	540	3,047	2,220	1,862	73.0
1925								
Mar. 31	1,083	398	313	360	2,986	2,114	1,714	76.6
June 30	1,100	480	254	353	2,933	2,172	1,651	75.7
Sept. 30	1,257	633	268	343	2,866	2,210	1,685	72.5
Dec. 31	1,395	635	374	375	2,824	2,212	1,838	69.0
1926								
Jan. 31	1,147	485	302	351	2,941	2,196	1,688	74.6
Feb. 28	1,216	577	301	327	2,890	2,187	1,689	73.2
Mar. 31	1,226	632	250	330	2,920	2,215	1,656	73.4
Apr. 30	1,187	572	210	393	2,918	2,194	1,680	74.3
May 31	1,195	548	238	396	2,947	2,195	1,710	74.9
June 30	1,158	515	249	385	2,980	2,229	1,697	75.3
July 31	1,159	567	216	372	2,973	2,206	1,700	75.0
Aug. 31	1,225	641	258	322	2,955	2,225	1,710	73.9
Sept. 30	1,270	681	280	304	2,920	2,209	1,731	72.8
Oct. 31	1,316	690	323	301	2,921	2,223	1,756	72.1
Nov. 30	1.335	662	364	306	2,934	2,232	1,782	71.9
Dec. 31	1,335	637	381	315	2,948	2,194	1,851	71.4

[1] Includes both gold and legal-tender notes and silver except subsidiary silver beginning 1923.

[2] Ratio of total reserves to combined total deposits (net deposits prior to 1921) and Federal reserve note circulation.

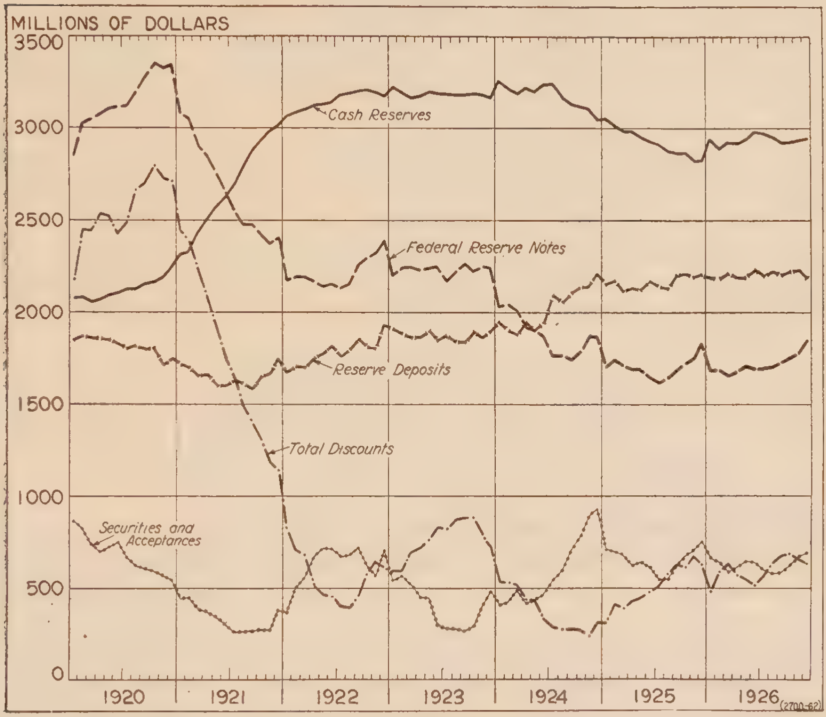
[3] Figures for 1917 to 1920 relate to last Friday of year.

Source: Federal Reserve Board.

The policy of the reserve system during the past year was, according to its annual report, "to maintain the discount rate at the reserve banks unchanged at 4 per cent, except for adjustments at the New York bank, and to continue the system's open-market investments, with relatively small fluctuations." The reduction from 4 to 3½ per cent, of the rate of the New York bank on April 23 "was supported by the purchase by the reserve system of $65,000,000 of United States securities in the open market, and the advance in August (back to 4 per cent) was followed by a gradual reduction of $75,000,000 in the system's open-market investment account."

As is usual, the volume of bills held by the 12 regional banks rose in the latter months of the year—from $764,000,000 on July 1 to $1,018,000,000 on December 31. The heaviest increase was in bills bought in the open market; the holdings of Government securities were somewhat reduced during those months.

Chart I.—CONDITION OF FEDERAL RESERVE BANKS



Analysis of Discounts of Reserve Banks.

About half of the discounted bills held by the Federal reserve banks during 1926 consisted of member-bank collateral notes secured by Government obligations. (Table 5.) As elsewhere noted, the total holdings increased only slightly during the year. Likewise there were no noteworthy changes in the various classes of bills.

Table 5.—Federal Reserve Bank Holdings of Discounted Bills, by Classes

[In millions and tenths of millions of dollars]

Date	Total holdings	Rediscounted bills				Member bank collateral notes		Summary	
		Commercial and agricultural paper	Bankers' acceptances	Trade acceptances	Secured by United States Government obligations	Secured by United States Government obligations	Otherwise secured	Secured by United States Government obligations	All other
Dec. 28, 1917	680.7	309.5	(1)	(1)	132.8	150.6	87.8	283.4	397.3
Dec. 27, 1918	1,702.9	265.0	(1)	16.0	363.0	1,037.3	21.6	1,400.4	302.6
Dec. 26, 1919	2,194.9	627.1	15.5	33.7	352.6	1,157.8	8.3	1,510.4	684.5
Dec. 30, 1920	2,719.1	1,521.5	17.2	21.4	271.5	869.5	17.9	1,141.0	1,578.1
Dec. 31, 1921	1,144.3	631.0	.3	10.0	41.5	443.7	17.8	485.2	659.1
Dec. 30, 1922	617.8	270.8	.3	4.8	3.6	328.2	10.0	331.8	286.0
Dec. 31, 1923	723.1	355.8	.2	7.0	3.9	349.8	6.3	353.7	369.4
1924									
Mar. 31	517.9	278.5	.3	5.5	2.6	226.4	4.6	228.9	288.9
June 30	334.0	209.3	(2)	4.6	1.6	113.9	4.5	115.6	218.4
Sept. 30	276.2	145.3		3.0	1.3	110.3	16.3	111.6	164.6
Dec. 31	314.1	102.1		3.4	1.3	185.6	21.8	186.8	127.3
1925									
Mar. 31	397.8	139.7		3.0	1.1	206.5	47.6	207.6	190.2
June 30	480.5	180.9		2.5	1.1	244.2	51.8	245.3	235.1
Sept. 30	633.2	205.7		2.3	1.0	315.8	108.4	316.8	316.4
Dec. 31	635.2	177.3		3.4	1.9	380.3	72.4	382.2	253.0
1926									
Mar. 31	632.4	213.0	.1	2.8	2.1	309.4	105.0	311.5	320.9
June 30	515.0	196.6	(2)	2.9	1.4	251.5	62.6	252.9	262.1
Sept. 30	681.3	231.8	.1	2.9	1.3	330.8	114.5	332.1	349.3
Dec. 31	636.6	171.0		2.8	1.1	364.2	97.6	365.3	271.3

[1] Included with "Commercial and agricultural paper."

[2] Less than $50,000.

Source: Federal Reserve Board.

Selected Member Banks—Monthly Data.

While the data published by the Comptroller of the Currency cover practically all the commercial banks of the country, they are only collected a few times in the course of a year. More frequent showings are obtained by the Federal Reserve Board, which for several years has sampled the general banking situation of the country by compiling weekly the reports of some 750 member banks. (Table 6.) These banks are located in the leading cities; and in June, 1926, their earning assets were 38 per cent of the earning assets of reporting banks of all classes other than the 12 reserve banks. (Table 2.)

Because the number of reporting banks has changed (804 in January, 1920, and 688 in December, 1926), it is safer to interpret the statistics of "reporting member banks" by ratios. Moreover, the secular trend in American banking has been so strong that seasonal movements in our banking operations can be established and measured only by advanced statistical methods. Table 6 shows that credit conditions last year were very stable. The December figures for the three years covered by the table show that the ratio of investments to loans and discounts declined from 42.3 per cent in 1924 to 38.4 per cent in 1925 and 38 per cent in 1926.

Table 6.—Loans and Investments and Net Demand Deposits of Reporting Member Banks of the Federal Reserve System in Leading Cities

[In millions of dollars]

Last weekly closing in—	Total loans and investments						
	1920	1921	1922	1923	1924	1925	1926
January	16, 632	16, 254	14, 534	16, 289	16, 364	18, 540	19, 426
February	16, 671	16, 099	14, 542	16, 330	16, 374	18, 538	19, 422
March	16, 819	15, 983	14, 544	16, 498	16, 580	18, 618	19, 546
April	16, 930	15, 603	14, 711	16, 473	16, 656	18, 716	19, 525
May	16, 946	15, 345	15, 029	16, 490	16, 610	18, 593	19, 579
June	16, 932	15, 331	15, 188	16, 543	16, 969	18, 710	19, 816
July	16, 860	14, 889	15, 189	16, 344	17, 252	18, 723	19, 627
August	16, 930	14, 759	15, 294	16, 244	17, 515	18, 846	19, 684
September	17, 140	14, 957	15, 454	16, 422	18, 008	19, 272	20, 029
October	17, 017	14, 729	15, 790	16, 474	18, 315	19, 345	19, 892
November	16, 732	14, 765	15, 761	16, 368	18, 487	19, 364	19, 849
December	16, 750	14, 780	16, 152	16, 490	18, 599	19, 697	20, 110

Last weekly closing in—	Loans and discounts			Investments			Net demand deposits		
	1924	1925	1926	1924	1925	1926	1924	1925	1926
January	11, 884	13, 051	13, 949	4, 480	5, 488	5, 477	11, 239	13, 014	13, 034
February	11, 877	13, 143	13, 930	4, 497	5, 396	5, 492	11, 167	12, 932	12, 935
March	12, 065	13, 140	14, 052	4, 515	5, 478	5, 495	11, 171	12, 588	12, 901
April	12, 121	13, 232	13, 949	4, 535	5, 484	5, 576	11, 439	12, 814	12, 829
May	11, 951	13, 108	13, 874	4, 659	5, 485	5, 705	11, 403	12, 645	12, 917
June	12, 142	13, 205	14, 135	4, 827	5, 505	5, 681	11, 837	12, 725	13, 252
July	12, 265	13, 217	13, 976	4, 987	5, 506	5, 652	12, 233	12, 818	12, 846
August	12, 424	13, 375	14, 069	5, 091	5, 471	5, 615	12, 424	12, 755	12, 835
September	12, 677	13, 832	14, 395	5, 331	5, 440	5, 634	12, 630	13, 046	13, 003
October	12, 764	13, 901	14, 314	5, 551	5, 443	5, 578	12, 922	13, 082	12, 918
November	12, 870	13, 959	14, 325	5, 617	5, 405	5, 524	13, 065	13, 025	12, 884
December	13, 068	14, 235	14, 569	5, 531	5, 462	5, 541	13, 254	13, 261	13, 082

Source: Federal Reserve Board.

All Member Banks.

Table 7 records the conditions of all the member banks of the Federal reserve system quarterly or semiannually for the last six years. This group of banks includes, besides the national banks, those institutions under State charters which have become members of the system. Their total resources represent over three-fifths of the aggregate for all banks of the country.

During the year the number of member banks declined by 229, but the total resources increased $605,000,000, or 1.5 per cent. This is the smallest growth of any year since 1920. Nevertheless, new high records were made in 1926 in practically every important item of resources and liabilities.

This was true of bill holdings. The peak for loans and discounts in the immediate postarmistice period was $20,080,000,000—on November 15, 1920. This total was exceeded for the first time at the last call in 1924 and was surpassed by an ever widening margin at each of the four calls in 1925. Loans and discounts were smaller in the first half of 1926, but the total as of December 31, 1926, was over $22,900,000,000, which was 2.8 per cent higher than at the end of 1925 and 14 per cent above the peak of 1920. Thus the recent healthy growth of commercial credit in the United States has surpassed the artificial expansion in our last important period of inflation.

Member-bank holdings of Government securities as of December 31, 1926, were only about two-thirds as large as their peak of $4,823,000,000 on March 4, 1919. During the year holdings of Government securities declined by $372,000,000, while holdings of "Other securities" increased by $438,000,000. The latter have increased every year since the reserve system was organized.

Demand deposits of all member banks actually decreased during 1926 by $342,000,000, or 2 per cent; while time deposits expanded $787,000,000, or 7 per cent. It is interesting to note that the large increase in time deposits did not result in any important increase in the total of member bank investments. As in 1925, the increase in investments was less in amount than the increase in capital, surplus, and undivided profits.

Table 7.—Condition of Member Banks of the Federal Reserve System

[Amounts in millions of dollars]

Date	Number of banks	Total resources	Loans and discounts[1]	United States Government securities[2]	Other securities[3]	Capital, surplus, and undivided profits	Demand deposits[4]	Time deposits	Wholesale price index[5]
1921:									
June 30	9,745	30,936	18,206	2,661	3,444	4,133	14,246	6,367	141.6
Dec. 31	9,779	30,114	17,484	2,648	3,513	4,093	13,921	6,451	139.8
1922:									
June 30	9,892	31,724	17,296	3,247	3,815	4,214	15,191	7,175	149.6
Dec. 29	9,859	33,883	18,081	3,788	3,899	4,364	16,135	7,645	156.2
1923:									
June 30	9,856	33,795	18,880	3,870	3,925	4.367	15,458	8,378	153.5
Dec. 31	9,774	35,239	19,052	3,641	4,045	4,378	16,324	8,651	151.0
1924:									
Mar. 31	9,681	34,820	19,176	3,570	4,087	4,468	15,878	8,890	149.9
June 30	9,650	35,777	19,264	3,608	4,390	4,486	16,472	9,204	144.6
Oct. 10	9,635	37,104	19,820	3,895	4,736	4,594	16,685	9,597	151.9
Dec. 31	9,587	38,987	20,181	3,903	4.942	4,532	18,009	9,805	157.0
1925:									
Apr. 6	9,531	37,949	20,390	3,916	4,979	4,669	17,018	10,127	156.2
June 30	9,538	39,105	20,814	3,802	5,086	4,690	18,021	10,381	157.4
Sept. 28	9,539	39,053	21,450	3,785	5,133	4,688	17,704	10,467	159.7
Dec. 31	9,489	41,425	22,275	3,761	5,163	4,678	19,355	10,653	156.2
1926:									
Apr. 12	9,412	40,075	22,006	3,831	5,233	4,826	18,066	10,955	151.1
June 30	9,375	40,845	22,267	3,745	5,378	4,832	18,570	11,173	152.3
Dec. 31	9,260	42,030	22,907	3,389	5,601	4,944	19,013	11,440	147.2

[1] Including rediscounts and overdrafts.

[2] Includes United States Government securities borrowed by national banks, except for June 30 and Dec. 31, 1926.

[3] Includes other securities borrowed by national banks, except for June 30 and Dec. 31, 1926.

[4] Including certified and cashier's or treasurer's checks and United States deposits.

[5] For month stated in stub.

Source: Federal Reserve Board.

Bankers' Acceptances.

Although our volume of outstanding dollar bankers' acceptances is still considerably less than that of sterling bankers' acceptances in the London market, the American Acceptance Council states that important progress was made during 1926 in their continued efforts to popularize this method of trade financing. The Kennedy bill—authorizing New York State life insurance companies to buy bankers' acceptances "of the kind and maturity made eligible by law for purchase in the open market by Federal reserve banks"—became law early in the year; it is hoped that other States will enact identical legislation.

The record volume of bankers' acceptances, approximately $1,000,000,000, occurred very early in 1920—in a period of abnormally high prices and large foreign trade. The monthly average for 1926, in dollars, was about 1 per cent less than that of 1925. When allowance is made for changes in price levels, however, a continuous growth is shown—at least since 1922. Moreover, there has been an increase in the variety of commodities financed by bankers' acceptances and in their geographic distribution abroad. It should be noted, however, that the growth of bank accepting in 1926 was slower than the growth of financial operations in general.

Monthly surveys of bankers' acceptances outstanding, begun by the American Acceptance Council in 1925, are shown in Table 8.

Table 8.—Bankers' Acceptances Outstanding Each Month, 1925 and 1926

[In thousands of dollars]

Last business day of—	1925	1926	Last business day of—	1925	1926
January	834, 825	788, 254	July	569, 386	600, 487
February	808, 359	767, 127	August	555, 167	582, 635
March	800, 137	745, 660	September	607, 025	614, 151
April	757, 074	720, 611	October	674, 168	681, 647
May	680, 346	685, 333	November	689, 768	726, 395
June	607, 942	621, 949	December	773, 736	755, 360

Source: American Acceptance Council.

Table 9 shows the distribution of accepting banks. It is worthy of note that 74.5 per cent and 10.8 per cent of the total accepting was done in 1926 in the New York and Boston Federal reserve districts, respectively. The Chicago and San Francisco districts rank next in importance.

Table 9.—Bankers' Acceptances Outstanding

[In thousands of dollars. The total outstanding Apr. 1, 1920, was $799,001,000]

Federal reserve district	Apr. 1						Dec. 31	
	1921	1922	1923	1924	1925 [1]	1926 [1]	1925	1926
Total	**644, 092**	**416, 422**	**523, 708**	**617, 581**	**800, 137**	**745, 660**	**773, 736**	**755, 360**
1. Boston	70, 511	45, 450	77, 152	74, 874	98, 833	95, 992	82, 362	81, 630
2. New York	460, 650	285, 595	359, 247	426, 140	564, 217	544, 948	581, 048	562, 711
3. Philadelphia	13, 233	10, 103	12, 226	11, 735	15, 791	9, 678	11, 355	8, 295
4. Cleveland	13, 438	9, 548	5, 000	13, 465	11, 876	12, 288	9, 394	9, 819
5. Richmond	9, 807	5, 459	3, 834	4, 876	13, 795	11, 511	15, 213	10, 274
6. Atlanta	7, 861	10, 727	7, 249	18, 602	16, 004	14, 324	17, 194	13, 224
7. Chicago	59, 268	36, 197	32, 514	40, 390	48, 354	27, 221	22, 322	28, 819
8. St. Louis	3, 044	908	1, 874	1, 536	1, 145	835	1, 268	1, 491
9. Minneapolis	3, 039	1, 928	3, 808	5, 911	4, 951	3, 626	4, 875	4, 701
10. Kansas City	2, 146	1, 687	---------	590	---------	50	100	125
11. Dallas	1, 985	734	607	481	2, 993	2, 351	4, 714	8, 030
12. San Francisco	19, 110	8, 085	20, 198	19, 983	22, 180	22, 833	23, 890	26, 240

[1] Mar. 31.

Source: American Acceptance Council.

MONEY RATES

Table 10 shows the monthly range of discount rates of the 12 Federal reserve banks for the past seven years, and indicates the downward sweep of these rates from the early part of 1921 to the end of 1924. All of the reserve banks, except that at New York, held their rates at 4 per cent throughout 1926. The reserve bank at New York continued its rate at 3½ per cent through the first week of 1926; from January 8 to April 22 its rate was 4 per cent; from April 23 to August 12 its rate was 3½ per cent; and from August 13 throughout the rest of 1926 its rate was again 4 per cent.

Table 10.—Discount Rates [1] of Federal Reserve Banks

Month	1920	1921	1922	1923	1924	1925	1926
January	[2] 4¼–5½	[3] 5½–7	4½–5½	4–4½	4½	3 –4	3½–4
February	[2,4] 4¾–6	[3] 5½–7	4½–5	4–4½	4½	3 –4	4
March	[2,5] 4¾–6	[3] 5½–7	4½–5	4–4½	4½	3½–4	4
April	[2] 4¾–6	[3] 5½–7	4½–5	4½	4½	3½–4	4
May	5 –6	[3] 5½–7	4½–5	4½	4½	3½–4	3½–4
June	5 –7	[3] 5½–6½	4½–5	4½	4 –4½	3½–4	3½–4
July	5 –7	5½–6½	4 –5	4½	3½–4½	3½–4	3½–4
August	[3] 5½–7	5½–6½	4 –5	4½	3½–4½	3½–4	3½–4
September	[3] 5½–7	5½–6½	4 –4½	4½	3 –4½	3½–4	4
October	[3] 5½–7	5 –6½	4 –4½	4½	3 –4½	3½–4	4
November	[3] 5½–7	5 –6	4 –4½	4½	3 –4	3½–4	4
December	[3] 5½–7	4½–5½	4 –4½	4½	3 –4	3½–4	4

[1] Rates are those in effect on the first of the month or the last day of the preceding month and cover all classes of paper except that the rate on 6 to 9 months agricultural and livestock paper in Boston and Philadelphia, June, 1923, to May, 1924, inclusive, was 5 per cent.

[2] Not including rate on War Finance Corporation bonds which was 1 per cent higher than rate on commercial paper.

[3] Except that the minimum rate on Treasury certificates of indebtedness was 5 per cent in some districts.

[4] Rate on Feb. 2.

[5] Rate on Feb. 28.

Source: Federal Reserve Board.

All money rates (Table 11) eased slightly in the spring and early summer and strengthened during the latter half of the year. The fluctuations were in no case great, and the net change between the end and the beginning of the year was negligible.

The call rate showed remarkable stability. Its maximum range was 4¼–5 per cent as compared with 3–5½, 2–5½, and 4–6 per cent in the preceding three years. This stability is the more remarkable in view of the instability of the stock market, particularly during the period of drastic liquidation of the latter part of February and March. During a single quarter brokers' loans declined by considerably more than one-half billion dollars.

Table 11.—Customary Money Rates in New York

NOTE.—Rates shown are those at which the bulk of the paper of each class is handled.

Month	Prime bankers' acceptances, 90 days [1]				Customers' prime commercial paper, 30 to 90 days [2]				Demand loans secured by stocks and bonds [2, 3]			
	1923	1924	1925	1926	1923	1924	1925	1926	1923	1924	1925	1926
January	4	4⅛	3	3½–3¾	4¾–5	5–5½	4	4½–5	4–5	4½–5½	3–5	4½–5
February	4	4–4⅛	3⅛	3⅝	4¾–5	5	4–5	4½–5	4¾–5	4½–5½	3½–4¾	4½
March	4	4–4⅛	3¼	3⅝	4¾–5	5	4–5	4½–5	5	4–5½	4½–4¾	4½–5
April	4⅛	3⅞–4	3⅛	3⅛–3⅝	5–5½	4¾–5	4–5	4½–5	4½–6	4¼–5½	3½–4½	4¾–5
May	4⅛	3–3½	3⅛–3¼	3⅛–3⅜	5–5½	4¾–5¼	4–4½	4¼–5	4½–5½	3½–5	3¾–5	4¼–5
June	4⅛	2¼–2⅜	3¼	3¼–3⅜	5–5½	4½–5	4–4½	4–4¾	4¾–5½	2–5	3¾–4¾	4½
July	4⅛	2	3¼	3⅜	5–5½	4–5	4–5	4¼	5–5½	2–4¾	4–4¾	4½
August	4⅛	2–2¼	3¼	3⅜–3¾	5¼	4–4¼	4–4½	4¼–4¾	4¾–5½	2–4½	4¼–4¾	4½–4¾
September	4⅛	2⅛–2¼	3½	3⅞	5–5½	3¾–5	4¼–5	4½–4¾	5–5½	2–4¾	4¼–5	5
October	4⅛	2¼	3½	3⅞	5¼–5½	3½–5	4¼–5	4½–4¾	5–5½	2½–4¾	4½–5	5
November	4⅛	2¼–2½	3½	3¾–3⅞	5¼–5½	3½–5	4¼–5	4½–4¾	4¾–6	2–4¾	4½–5	4¾–5
December	4⅛	2¾–3	3½	3¾–3⅞	5¼–5½	4–4½	4½–5	4½–4¾	4¼–5	3½–5	5–5½	4¾–5

[1] Calendar month.

[2] For January, 1923, to January, 1924, inclusive, 30 days ending 15th of month; thereafter, week ending 15th of month. Rates for prime commercial paper beginning June, 1926, are for both 30–90 days and 4–6 months' paper.

[3] Except Liberty bonds.

Source: Federal Reserve Board.

BANK CLEARINGS AND DEBITS TO INDIVIDUAL ACCOUNTS

Clearings.

Table 12 shows bank clearings for years ending September 30 since 1891. Figures are for 184 identical cities beginning with 1920, but prior to that year there was some variation in the number included.

The year ended September 30, 1926, was the first in which bank clearings exceeded $500,000,000,000. Despite a considerable reduction in the price level, clearings were nearly 6 per cent more than in the preceding 12 months. According to the Commercial and Financial Chronicle total clearings in the calendar year 1926 aggregated $524,000,000,000, which was 2.4 per cent more than in 1925 for both New York and "out-of-town" clearings, an extremely rare coincidence, indicating that the increase of check payments was not due, disproportionately, to stock-market activity. Monthly statistics show a marked decline from the 1925 volume of check clearings during each of the last three months of 1926.

Table 12.—Bank Clearings in the United States

[Amounts in millions of dollars. Commencing with 1920, figures are for 184 identical cities. In earlier years there was some variation in number of cities included. For wholesale price index, 1913=100]

Yearly average or year ended Sept. 30—	Total	New York City	Outside New York City	Wholesale price index	Year ended Sept. 30—	Total	New York City	Outside New York City	Wholesale price index
1891–1895	54, 617	31, 450	23, 167	74. 0	1920	460, 837	252, 338	208, 499	226. 2
1896–1900	69, 090	41, 975	27, 115	71. 7	1921	374, 558	204, 082	170, 476	146. 9
1901–1905	117, 507	74, 832	42, 675	84. 2	1922	379, 637	213, 326	166, 311	148. 8
1906–1910	153, 252	94, 902	58, 350	94. 0	1923	408, 803	214, 621	194, 182	153. 7
1911–1915	165, 692	93, 563	72, 128	98. 2	1924	434, 984	235, 499	199, 486	149. 7
1916–1920	343, 396	194, 056	149, 340	186. 2	1925	496, 284	276, 874	219, 410	158. 7
1921–1925	418, 827	228, 881	189, 946	151. 6	1926	525, 471	293, 443	232, 027	151. 0
1913	173, 193	98, 122	75, 071	100. 0	Per cent change from 1925	+5. 9	+6. 0	+5. 8	−4. 9
1919	387, 854	214, 703	173, 151	206. 4					

Source: Comptroller of the Currency, Treasury Department.

Debits to Individual Accounts.

Bank clearings have long been criticised as a business index, because they do not include checks on the payee's bank and checks cashed at banks on which drawn, and because bank mergers and the progress of branch banking tend to vitiate comparisons over a period of years. Since 1918 statistics of debits to individual accounts have been compiled by the Federal Reserve Board. In 1925 these statistics embraced 258 cities and covered probably more than 90 per cent of the checks drawn in the country, but in order to maintain comparability for all years, data for 141 cities are shown in Table 13. The 1921, 1922, and 1923 (calendar years) total of debits to individual accounts of these 141 cities were each exactly 12.2 per cent more than clearings of all cities as recorded by the Commercial and Financial Chronicle, but in 1924 debits exceeded clearings by only 8 per cent, in 1925 by 11.2 per cent, and in 1926 by 15.9 per cent.

Table 13.—Debits to Individual Accounts in 141 Principal Cities

[In millions of dollars]

Year	Total	New York City	All other cities	Year	Total	New York City	All other cities
1919	455, 294	244, 119	211, 175	1923	463, 726	238, 396	225, 330
1920	483, 026	241, 431	241, 596	1924	491, 691	263, 531	228, 161
1921	399, 036	207, 096	191, 941	1925	569, 796	313, 373	256, 423
1922	439, 364	239, 855	199, 509	1926	607, 655	339, 055	268, 600

Source: Federal Reserve Board.

As shown by Table 15, debits to individual accounts were higher in each month of 1925 than in the corresponding month of 1924. A similar expansion occurred in every month except October of 1926 for the out-of-town debits, and in all months except October and November for New York bank debits.

The increased prosperity of 1926 was not shared equally by all sections of the country. Table 14 indicates that the greatest increases occurred in the San Francisco, New York, Boston, and Chicago districts, and quite marked gains in check payments were shown by all other industrial districts. Increases, on the other hand, were very small in the southern districts, which were adversely affected by the sharp drop in the price of cotton. Minneapolis was the only district which showed a decline in debits, and that may be attributed to less favorable agricultural conditions.

Chart II.—DEBITS TO INDIVIDUAL ACCOUNTS IN 141 LEADING CITIES

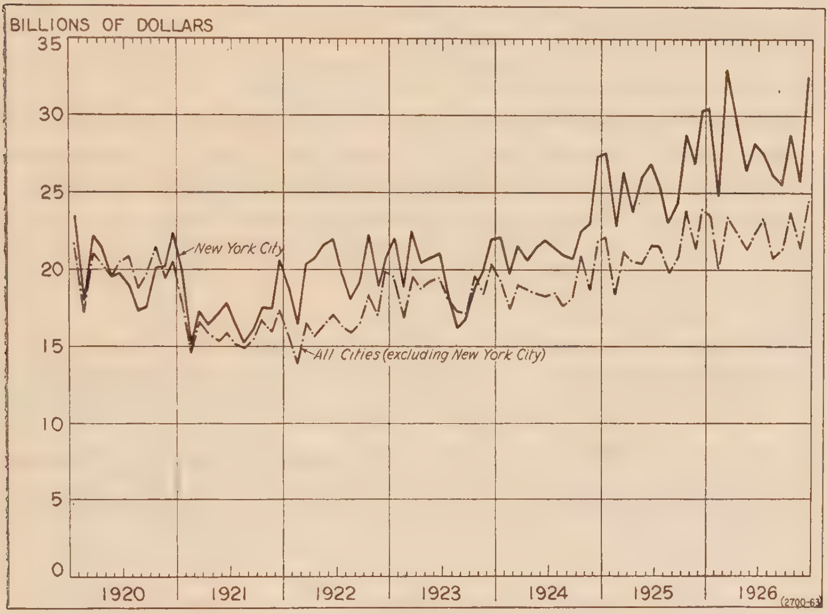


Table 14.—Debits to Individual Accounts in Each Federal Reserve District

[In millions of dollars].

Year	Boston	New York	Philadelphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
1920	28, 137	249, 375	22, 092	27, 677	9, 635	12, 812	59, 066	13, 542	8, 902	16, 322	7, 240	28, 226
1921	21, 736	213, 911	18, 690	21, 105	8, 235	9, 383	46, 837	10, 401	6, 788	12, 207	5, 807	23, 937
1922	22, 392	247, 067	19, 985	22, 290	7, 716	9, 579	49, 304	10, 939	6, 971	12, 550	6, 010	24, 562
1923	24, 851	246, 493	22, 301	26, 140	8, 501	11, 137	55, 367	12, 794	7, 495	13, 494	6, 217	28, 936
1924	25, 675	271, 861	22, 773	25, 775	8, 298	11, 721	55, 995	12, 812	8, 240	12, 778	6, 227	29, 535
1925	29, 014	322, 843	25, 253	28, 726	9, 193	13, 913	63, 574	14, 385	9, 039	14, 193	6, 930	32, 731
1926	31, 033	348, 833	26, 248	30, 022	9, 336	14, 264	67, 217	14, 741	8, 301	14, 794	7, 174	35, 663

Source: Federal Reserve Board.

Table 15.—Debits to Individual Accounts in 141 Cities

[In billions and tenths of billions of dollars]

Month	140 cities, not including New York						New York City					
	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
January	18.0	15.9	19.7	19.4	22.3	23.6	20.0	19.1	22.1	22.1	27.7	30.5
February	14.6	14.0	16.9	17.5	18.6	20.1	15.1	16.5	19.0	19.9	22.9	24.8
March	16.6	16.5	19.6	19.2	21.2	23.4	17.4	20.4	22.5	21.5	26.4	33.0
April	15.9	15.7	18.8	18.9	20.6	22.5	16.3	20.7	20.5	20.7	23.9	29.3
May	15.3	16.3	19.4	18.6	20.4	21.4	17.2	21.7	20.7	21.4	26.2	26.6
June	15.9	17.2	19.5	18.3	21.7	22.4	17.8	22.1	21.0	21.9	26.9	28.2
July	15.2	16.3	18.2	18.7	21.6	23.3	16.3	19.7	18.3	21.5	25.5	27.7
August	14.9	15.8	17.3	17.8	19.8	20.8	15.2	18.3	16.2	20.9	23.3	26.2
September	15.5	16.6	17.3	18.2	20.9	21.3	16.1	19.2	16.8	20.7	24.4	25.6
October	16.7	18.4	19.8	20.9	24.0	23.8	17.6	22.3	19.2	22.5	28.9	28.8
November	15.9	17.1	18.5	18.8	21.3	21.6	17.5	19.0	20.0	23.0	27.0	25.8
December	17.4	19.6	20.4	21.8	24.1	24.5	20.6	20.9	22.1	27.3	30.3	32.6

Source: Federal Reserve Board.

LIFE INSURANCE

Since the depression of 1920–21, the amount of new life insurance written has established a new high record each year. It is estimated by private authority that $16,383,000,000 of new life insurance was written during 1926. Table 16, which contains data from 45 life insurance companies supposed to transact about four-fifths of the total business, shows that new policies written by them during 1926 totaled $11,398,000,000.

Relatively, the expansion in group life insurance has been most rapid, the 1926 volume of new business of this type having been 76 per cent more than the volume two years earlier. (Table 16.) The

Table 16.—New Business and Premiums of Principal Life Insurance Companies

[Number of policies in thousands, amounts in millions of dollars. Data cover the business of 45 companies which had in force 81 per cent of the total legal reserve life insurance outstanding in the United States Dec. 31, 1923]

Item	1924	1925	1926	1925				1926			
				Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.	Jan.–Mar.	Apr.–June	July–Sept.	Oct.–Dec.
New business written and paid for:											
Total amount of policies	8,949	10,757	11,398	2,392	2,741	2,531	3,093	2,726	2,942	2,576	3,154
Ordinary—											
Number of policies	2,362	2,570	2,621	580	671	608	712	617	700	605	698
Amount	6,388	7,399	7,782	1,727	1,975	1,772	1,925	1,882	2,082	1,778	2,039
Industrial—											
Number of policies	8,445	9,653	9,586	2,160	2,474	2,143	2,875	2,316	2,390	2,350	2,530
Amount	1,964	2,359	2,565	519	613	539	689	632	653	591	689
Group—											
Number of policies	359	546	752	97	93	117	240	137	144	142	329
Amount	598	999	1,051	146	153	220	480	212	206	207	425
Premium income, total [1]	1,765	2,026	2,167	485	498	464	579	531	539	509	588
Ordinary	1,323	1,501	1,571	362	378	343	419	390	403	370	408
Industrial	410	469	537	106	108	112	143	122	125	127	163
Group	31	56	59	16	12	10	17	18	12	12	17

[1] Includes total premiums collected, new and renewal.

Source: Survey of Current Business, compiled by the Association of Life Insurance Presidents.

value of new industrial and ordinary life insurance policies increased during the same period by 31 and 22 per cent, respectively. New group life insurance is still less than one-tenth of the new business, and the premiums collected during 1926 on all such insurance outstanding were only $59,000,000, or less than 3 per cent of the total premium receipts of the reporting companies.

The remarkable growth in life insurance since pre-war years is shown in Table 17, which includes data for all companies, but excludes insurance by fraternal orders. The total amount of life insurance written in 1925 was almost five times as large as in the average of the years 1911–1915, while the total value of policies in force more than tripled. During this period of more than a decade ordinary life insurance has shown a somewhat greater growth than industrial insurance. The total assets of all legal reserve life-insurance companies in this country at the end of 1926 were estimated at $12,850,000,000. This was slightly more than one-half the total assets of the national banks and almost one-third of the total assets of "other reporting banks."

Table 17.—Finances and Business of All Life Insurance Companies

[Number of policies in thousands, amounts in millions of dollars]

Item	1911–1915, average	1921–1925, average	1921	1922	1923	1924	1925
Total amount of policies, all classes:							
Written during year [1]	3, 234	11, 848	8, 730	9, 774	12, 070	13, 195	15, 473
In force, end of period or year [2]	22, 784	71, 642	45, 983	50, 291	56, 804	63, 780	71, 642
Increase during year	1, 276	5, 872	3, 702	4, 307	6, 513	6, 976	7, 862
Ordinary: [3]							
Number of policies—							
Written during year [1]	1, 344	3, 362	2, 800	2, 905	3, 560	3, 643	3, 900
In force end of period or year [2]	9, 890	23, 894	17, 685	18, 814	20, 534	22, 121	23, 894
Increase during year	585	1, 440	990	1, 129	1, 720	1, 587	1, 773
Amount of policies—							
Written during year [1]	2, 373	9, 143	6, 787	7, 506	9, 455	10, 152	11, 817
In force, end of period or year [2]	18, 349	58, 818	37, 977	41, 404	46, 696	52, 436	58, 818
Increase during year	1, 024	4, 745	2, 886	3, 427	5, 292	5, 740	6, 382
Industrial:							
Number of policies—							
Written during year [1]	6, 201	13, 412	10, 976	12, 245	13, 088	14, 325	16, 425
In force, end of period or year [2]	33, 142	73, 736	54, 097	58, 283	63, 461	68, 248	73, 736
Increase during year	2, 022	4, 786	4, 292	4, 186	5, 178	4, 787	5, 488
Amount of policies—							
Written during year [1]	860	2, 705	1, 943	2, 268	2, 615	3, 043	3, 656
In force, end of period or year [2]	4, 435	12, 824	8, 006	8, 887	10, 107	11, 344	12, 824
Increase during year	252	1, 127	816	880	1, 221	1, 237	1, 480
Income and expenditures, all classes:							
Premium income	710	1, 926	1, 537	1, 686	1, 900	2, 122	2, 384
Interest and other income	231	524	414	463	528	580	634
Payments to policyholders	477	1, 077	840	1, 006	1, 088	1, 205	1, 246
Other expenditures	191	563	449	488	578	608	690

[1] New business written and paid for.

[2] Figures in first two columns represent number or amount in force at the end of 1915 and 1925, respectively.

[3] Includes group.

Source: The Insurance Yearbook of the Spectator Co., New York, N. Y.

SAVINGS

Various persons have attempted to estimate the annual volume of savings in the United States, but it is practically impossible to obtain accurate results by such an investigation. The principal difficulty is the fact that there are numerous and extensive duplications; for example, increased savings deposits may be invested by the savings banks in new capital issues. Table 18 shows the trend of various types of savings since 1913, but does not pretend to measure the total volume of savings. Some of the important savings items not shown in the table are other kinds of insurance, certain time deposits in commercial banks, reductions of indebtedness from current income, and noncorporate payments for capital goods from current income are savings. Statistics on several of these elements of the problem can not be obtained.

Table 18.—Certain Major Items of American Savings

[In millions of dollars]

NOTE.—Increase in savings deposits is for fiscal years ended June 30; increase in assets of building and loan associations includes figures for calendar years for some States and fiscal years ending various dates for others; other data are for calendar years.

Year	Increase in savings deposits, all banks [1]	Increase in assets of building and loan associations	Premiums paid to life insurance companies less operating expenses			Additions to surpluses of corporations	New capital issues
			Total	Ordinary life [2]	Industrial life		
1913	144	111	524	374	150	----------	----------
1918	659	129	706	502	203	----------	----------
1919	1, 506	228	840	566	274	----------	3, 588
1920	2, 274	408	931	613	318	----------	3, 635
1921	1, 187	356	1, 088	719	369	----------	3, 577
1922	1, 078	452	1, 198	779	419	1, 747	4, 304
1923	2, 148	600	1, 322	833	489	2, 528	4, 304
1924	1, 462	823	1, 514	947	567	1, 575	5, 593
1925	1, 945	[3] 743	1, 694	1, 046	647	----------	6, 224
1926	1, 562	----------	----------	----------	----------	----------	6, 311

[1] Includes postal savings funds deposited in banks which amounts to about one-half to two-thirds of all postal savings reported by the Postal Savings System.

[2] Includes "Group."

[3] Total assets at end of 1925 were $5,509,000,000.

Sources: Savings deposits, American Bankers' Association; building and loan associations, United States League of Building and Loan Associations; life insurance, The Insurance Yearbook of The Spectator Co., New York, N. Y.; additions to surpluses of corporations, Treasury Department; new capital issues, Commercial and Financial Chronicle.

STOCK AND CIRCULATION OF MONEY

The stock of money during 1926 increased by $159,000,000, or 1.9 per cent, whereas it had decreased by 2.7 per cent during 1925. About three-fifths of this increase was caused by the net import of gold during the year, $98,000,000, and most of the rest of the increase was in Federal reserve notes, $55,000,000. The number of silver dollars coined during the year was 11,267,700; this accounts for the increased standard silver stock for the calendar year.

The circulation of money decreased by about one-seventh of 1 per cent during 1926. In no year since 1923 has it varied by more than four-fifths of 1 per cent, but in that year it increased by 4.6 per cent. It is interesting that during 1926 gold and gold-certificate circulation declined by about 1½ per cent, although the gold stock increased by more than 2 per cent.

Chart. III.—MONEY IN CIRCULATION AND STOCK OF GOLD

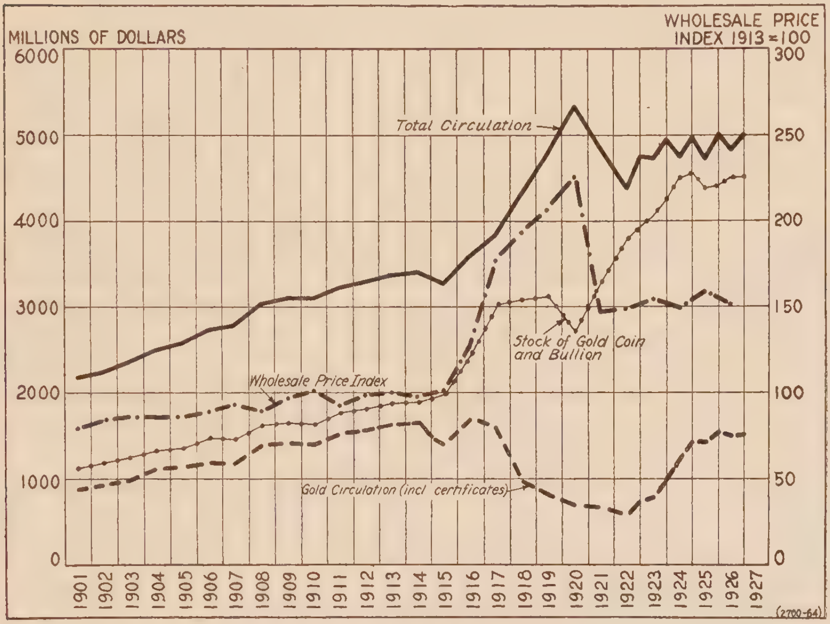


Table 19.—Stock and Circulation of Money [1]

[Millions of dollars]

Jan. 1—	Total	Gold coin and bullion	Standard silver dollars	Subsidiary silver	Federal reserve notes	Federal reserve bank notes	National-bank notes	United States notes	Treasury notes of 1890
Stock: [2]									
1923	8,614	[3] 3,933	442	269	[4] 2,817	44	762	347	--------
1924	8,977	[3] 4,247	498	277	[4] 2,822	14	772	347	--------
1925	8,715	[3] 4,547	512	283	[4] 2,245	9	772	347	--------
1926	8,484	[3] 4,409	524	289	[4] 2,206	6	705	347	--------
1927	8,643	[3] 4,502	535	295	[4] 2,261	5	698	347	--------
Circulation:									
1923	4,733	[5] 732	[5] 350	246	2,373	37	708	286	1
1924	4,951	[5] 997	[5] 434	261	2,224	14	713	307	1
1925	4,993	[5] 1,429	[5] 446	266	1,842	8	705	295	1
1926	5,008	[5] 1,538	[5] 442	275	1,816	6	636	293	1
1927	5,001	[5] 1,515	[5] 448	282	1,824	5	629	297	1

[1] In 1924 to 1927, includes United States paper currency in circulation in foreign countries and the amount held by Cuban agencies of the Federal reserve banks; does not include copper and nickel coins.

[2] Does not include gold and silver certificates and Treasury notes of 1890, since they are backed dollar for dollar by gold or silver.

[3] Does not include gold bullion or foreign coin outside the vaults of the Treasury, Federal reserve banks, and Federal reserve agents.

[4] Includes own Federal reserve notes held by Federal reserve banks.

[5] Includes certificates.

Source: Treasury Department.

Table 19 shows the stock and circulation of money at the ends of five recent calendar years, while Table 20 shows similar data by fiscal years for a longer period. Per capita circulation of money reached a peak in 1920, dropped to a low point in 1922, was expanded in 1923, showed a downward tendency in 1924 and 1925, and was slightly increased again in the fiscal year ending June 30, 1926.

Table 20.—Stock and Circulation of Money, 1900 to 1926

[In millions of dollars]

June 30—	Stock[1]				In circulation				Circulation per capita
	Total[1]	Gold[1]	Silver[2]	Paper	Total	Gold[1]	Silver[1]	Paper[3]	
1900	2, 340	1, 034	649	656	2, 055	812	551	693	$26. 93
1905	2, 883	1, 358	683	842	2, 588	1, 136	630	822	31. 08
1910	3, 420	1, 636	723	1, 060	3, 102	1, 394	687	1, 022	34. 33
1913	3, 720	1, 871	743	1, 106	3, 364	1, 612	696	1, 056	34. 56
1914	3, 738	1, 891	750	1, 097	3, 402	1, 638	709	1, 055	34. 35
1915	3, 989	1, 986	754	1, 250	3, 261	1, 409	687	1, 165	32. 38
1916	4, 483	2, 450	757	1, 276	3, 591	1, 681	714	1. 197	35. 06
1917	5, 408	3, 019	767	1, 622	3, 849	1, 601	734	1, 514	36. 96
1918	6, 741	3. 076	731	2, 914	4, 336	978	664	2, 694	40. 96
1919	7, 605	3, 113	551	3, 941	4, 795	803	472	3, 519	45. 18
1920	7, 910	2, 709	528	4, 673	5, 332	691	424	4, 218	50. 11
1921	8, 099	3, 298	560	4, 241	4, 843	672	461	3, 710	44. 80
1922	8, 177	3, 785	652	3, 740	4, 374	589	553	3, 232	39. 86
1923	8, 604	4, 050	761	3, 793	4, 729	791	669	3, 270	42. 50
1924	8, 747	4, 491	781	3, 474	4, 755	1, 197	671	2, 886	42. 19
1925	8, 221	4, 386	806	3, 029	4, 736	1, 429	699	2, 609	41. 51
1926	8, 374	4, 501	822	3, 050	4, 834	1, 503	699	2, 633	41. 85

[1] See footnotes to Table 19 which apply to corresponding items.
[2] Not including silver bullion, the value of which was about $8,438,120 on June 30, 1926.
[3] Excluding gold and silver certificates, but including Treasury notes of 1890.

Source: Treasury Department.

GOLD MOVEMENT

Gold exports and imports in all recent calendar and fiscal years are shown in Table 21; they are shown by months in the section on foreign trade. In 10 of the last 12 calendar years, the United States has been an importer of gold; the net amount imported during 1915–1926, inclusive, was $2,376,000,000. In 1925 we became an important exporter of gold, but in 1926, the movement was reversed and we imported a net amount of almost $100,000,000. Only four months of the year were gold export months.

A large part of the gold movement to and from this country has resulted from deposits and withdrawals of foreign central banks. This influence has become so strong in recent years as to obscure the movement of gold in settlement of international balances. This may explain our gold imports in 1926 despite the increase in our foreign loans and the reduction of our excess of merchandise exports.

Table 21.—Gold Exports and Imports

[In millions of dollars]

Yearly average or year (calendar year)	Exports	Imports	Net exports (+) or imports (−)	Yearly average or year ended June 30—	Exports	Imports	Net exports (+) or imports (−)
1901–1905	61	60	+1	1901–1905	65	63	+1
1906–1910	75	91	−16	1906–1910	74	89	−15
1910	59	59	(1)	1910	119	43	+75
1911	37	57	−20	1911	23	74	−51
1912	47	67	−19	1912	57	49	+8
1913	92	64	+28	1913	78	69	+9
1914	223	57	+165	1914	112	67	+46
1915	31	452	−421	1915	146	172	−25
1916	156	686	−530	1916	90	494	−404
1917	372	552	−180	1917	292	977	−685
1918	41	62	−21	1918	191	124	+66
1919	368	77	+292	1919	117	62	+54
1920	322	417	−95	1920	466	151	+316
1921	24	691	−667	1921	134	639	−505
1922	37	275	−238	1922	27	468	−441
1923	29	323	−294	1923	49	284	−235
1924	62	320	−258	1924	10	417	−407
1925	263	128	+134	1925	249	134	+115
1926	116	214	−98	1926	113	211	−97

[1] Less than $500,000 excess of imports.

Source: Bureau of Foreign and Domestic Commerce.

FOREIGN EXCHANGE

European Exchanges.

In 1926 Europe was still in the period of postwar reconstruction in currency matters. It can be said that, during the year as a whole, no European country lost ground in its struggle to achieve or maintain a stable currency and that several European countries made important gains.

Of the 21 European countries whose exchanges are quoted daily by the Federal Reserve Board, only 7 showed lower quotations on December 31, 1926, than one year earlier. In each of these 7 cases, the year's decline was so fractional that it could be ascribed to day-by-day fluctuations at an established level. On the other hand, the exchanges of Norway and Denmark appreciated during the year by 24 and 8 per cent, respectively, and the latter is now virtually at par. Italian exchange rose by about 12 per cent, Rumanian exchange by 14 per cent, Spanish exchange by 8 per cent, and French exchange by 6 per cent. The new gold pengo, authorized by the Hungarian Parliament on November 21, 1925, came into physical existence during the year. Its mint par is $0.1748985.

The Franc Currencies.

The franc currencies were under great pressure throughout the spring and early summer. Uncertain political and financial conditions in France greatly weakened the French franc and there was an alarming sympathetic weakening of the Belgian franc and of the Italian lira, particularly of the former. French exchange closed

1925 at \$0.0375, having declined that year by 30 per cent, and it held this level, with minor fluctuations, until February 4. Thereafter there were numerous breaks and rallies, in a definitely downward trend; on May 21 there was a rally of more than 8 per cent in one day. The year's low in each of these three currencies was reached in July; they were respectively \$0.0205 on July 20 for the French franc, \$0.0212 on July 12 for the Belgian franc, and \$0.0318 on July 27 for the Italian lira (New York buying rates for cable transfers).

On July 13 the Belgian Parliament passed a law delegating to the King for a period of six months full powers to deal with the financial situation. This resolute action led to retrenchment in public finance and to the creation on October 25 of the new "belga" unit of currency stabilized by a \$100,000,000 loan from the United States, England, and other countries. The belga has a mint par of 13.9 cents and is invariably equal to five Belgian francs. The new currency unit is expected to be proof against the influence of possible fluctuation in French franc.

France appointed a committee of experts to investigate its exchange and other problems. The franc continued to fluctuate but there was a strong upward trend. The Italian lira, because of improving domestic conditions as well as the developments in Belgian and French exchange, likewise moved upward; between July 27 and October 26, it rose 41 per cent.

Bar Silver and the Silver Exchanges.

Developments in India are mainly responsible for the wide range in New York bar-silver prices during 1926—from 65⅝ cents per ounce in the opening days of the year to 51½ cents on October 20. During the previous year (1925) silver had been phenomenally steady. In August, 1925, a Royal currency commission was appointed to consider questions of Indian currency reform; its report was rendered in August, 1926. Current reports and rumors as to the testimony received by that commission are probably responsible for the slight weakening of silver, but the price was as high as 65½ cents on July 14. Although the report of the commission recommended the adoption of a "gold bullion" standard for India—which threatened to turn the greatest silver-importing country into the greatest silver-exporting country—the sharpest decline in silver occurred several weeks after its issuance. In the last two months of the year, silver rallied slightly and closed the year at 54⅛ cents.

Developments in China also influenced silver adversely. Military disturbances in China continued, and Chinese speculators are known to have sold silver to buy yen in the expectation that the yen would recover full parity. On several days of the year silver fluctuated by 4 per cent or more. The Chinese exchanges as usual followed bar silver fluctuations very closely.

Table 22.—Foreign Exchange Rates

[All figures, except general index, in dollars per unit of foreign currency]

Period	General index, per cent of par [1]	Belgium (belga, $0.1390)[2]	Denmark (krone, $0.2680)	France (franc, $0.1930)	Germany (reichsmark, $0.2382)	Great Britain (pound, $4.8665)	Italy (lira, $0.1930)	Netherlands (florin, $0.4020)	Norway (krone, $0.2680)	Spain (peseta $0.1930)
1919	88	[2]0.1277	0.2329	0.1368	[3]0.0304	4.4258	0.1137	0.3915	0.2458	0.1982
1920	65	[2].0738	.1578	.0704	[3].0175	3.6643	.0497	.3442	.1653	.1594
1921	62	[2].0745	.1780	.0746	[3].0120	3.8491	.0429	.3365	.1491	.1353
1922	69	[2].0768	.2095	.0820	[3].0023	4.4292	.0476	.3850	.1750	.1548
1923	65	[2].0522	.1836	.0608	[3].00002	4.5748	.0460	.3910	.1667	.1445
1924	60	[2].0464	.1672	.0524	--------	4.4171	.0436	.3821	.1394	.1334
March	58	[2].0387	.1568	.0468	[4].00022	4.2906	.0428	.3707	.1355	.1273
June	60	[2].0456	.1678	.0525	[4].00023	4.3199	.0433	.3744	.1351	.1346
September	61	[2].0494	.1695	.0530	[4].00024	4.4605	.0438	.3845	.1383	.1324
December	62	[2].0497	.1764	.0540	.2380	4.6958	.0430	.4042	.1506	.1396
1925	--------	[2].0476	.2113	.0477	.2380	4.8289	.0398	.4016	.1788	.1434
March	63	[2].0507	.1807	.0518	.2380	4.7763	.0407	.3992	.1543	.1422
June	--------	[2].0470	.1911	.0477	.2380	4.8604	.0383	.4014	.1701	.1457
September	--------	[2].0440	.2452	.0471	.2380	4.8465	.0406	.4021	.2093	.1439
December	--------	[2].0453	.2486	.0374	.2381	4.8498	.0403	.4019	.2031	.1418
1926	--------	[2].0236	.2623	.0324	.2380	4.8582	.0389	.4010	.2233	.1490
March	--------	[2].0423	.2611	.0358	.2380	4.8608	.0402	.4007	.2147	.1409
June	--------	[2].0296	.2648	.0294	.2381	4.8661	.0366	.4018	.2210	.1576
September	--------	[2].0272	.2655	.0285	.2381	4.8542	.0367	.4007	.2191	.1522
December	--------	.1391	.2664	.0395	.2380	4.8512	.0444	.3999	.2529	.1524

Period	Sweden (krona, $0.2680)	Switzerland (franc, $0.1930)	Canada (dollar, $1.00)	Argentina (peso, $0.9648)	Brazil (milreis, $0.3244)	Chile (peso, $0.1217)[5]	China (Shanghai tael)[6]	India (rupee, $0.4866)	Japan (yen, $0.4985)	Straits Settlements (Singapore dollar, $0.5678)
1919	0.2554	0.1898	0.9560	0.9902	0.2674	0.2256	1.2984	0.4030	0.5118	--------
1920	.2049	.1690	.8928	.9070	.2251	.1845	1.1860	.3888	.5037	--------
1921	.2254	.1735	.8955	.7300	.1312	.1206	.7078	.2622	.4825	--------
1922	.2617	.1907	.9848	.8182	.1295	.1222	.7493	.2874	.4780	0.5078
1923	.2655	.1806	.9804	.7857	.1023	.1224	.7202	.3111	.4858	.5350
1924	.2652	.1822	.9873	.7813	.1094	.1054	.7268	.3178	.4119	.5125
March	.2629	.1729	.9696	.7655	.1145	.0977	.7000	.2986	.4290	.5028
June	.2654	.1766	.9844	.7389	.1075	.1060	.7137	.3049	.4108	.5019
September	.2660	.1888	.9994	.8003	.1009	.1044	.7527	.3252	.4060	.5151
December	.2695	.1938	.9965	.8832	.1151	.1133	.7547	.3529	.3844	.5399
1925	.2685	.1933	.9996	.9138	.1220	.1160	.7577	.3626	.4104	.5615
March	.2695	.1926	.9987	.8971	.1104	.1110	.7336	.3567	.4097	.5510
June	.2676	.1940	1.0000	.9133	.1089	.1132	.7609	.3648	.4083	.5658
September	.2682	.1931	.9999	.9171	.1352	.1202	.7847	.3663	.4075	.5659
December	.2679	.1930	.9996	.9421	.1417	.1216	.7568	.3664	.4319	.5663
1926	.2676	.1931	.9999	.9215	.1444	.1208	.6842	.3633	.4712	.5627
March	.2681	.1925	.9963	.9033	.1449	.1208	.7271	.3658	.4539	.5663
June	.2680	.1936	1.0010	.9166	.1552	.1204	.7217	.3629	.4685	.5621
September	.2675	.1932	1.0014	.9220	.1519	.1213	.6660	.3633	.4840	.5607
December	.2672	.1932	.9993	.9328	.1185	.1204	.5897	.3605	.4894	.5594

[1] The general index is based on the average rate of exchange for the countries shown with the exception of Germany and Straits Settlements. It represents the aggregative average of cable transfer rates on these countries weighted by the total volume of imports and exports of merchandise, gold, and silver from and to each country for the preceding 12 months. Index not computed subsequent to March, 1925.

Quotations except for December, 1926, are based on the franc, par value 19.30 cents.

[3] Per mark.

[4] Per billion marks.

[5] Quotations prior to 1926 are for the paper peso (1913 average, 19.53 cents). Beginning 1926 the currency was reestablished on a gold basis, the peso being devaluated to 12.17 cents.

[6] Par varies with the price of silver.

Source: Federal Reserve Board.

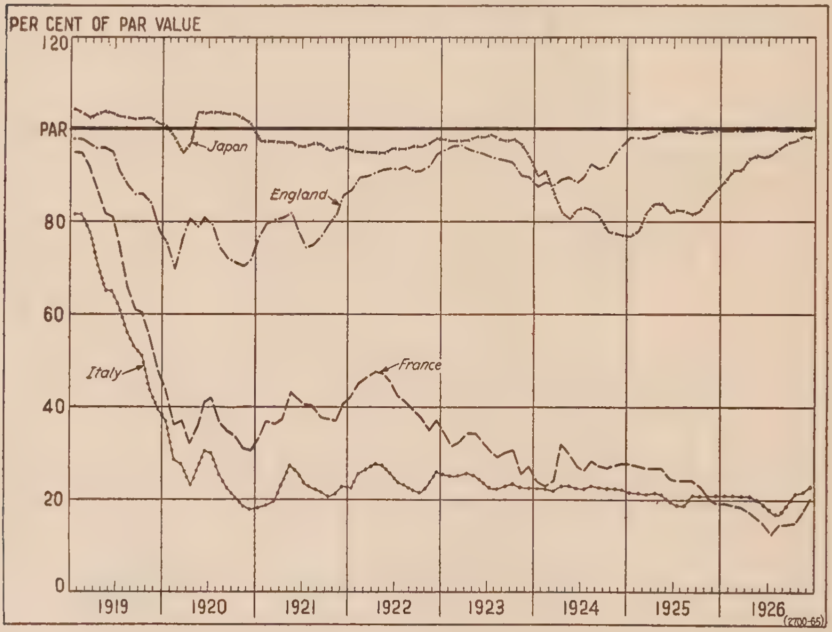
Japanese Exchange.

The yen advanced rapidly during 1926 and was $0.4895 at the end of the year, as compared with $0.4317 at the end of 1925. The high was $0.4913 on November 9 and 22. The greatest advance occurred between October 24, 1925, and February 18, 1926. Throughout the second half of 1926, the lifting of the gold embargo was seriously considered in Japan.

Latin-American Exchanges.

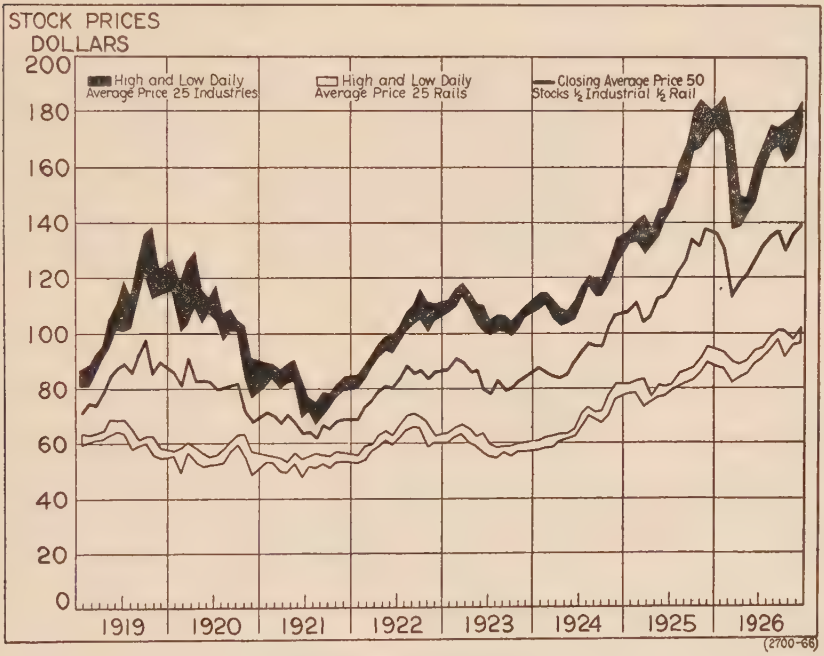
For the 20 republics comprising what is generally designated as "Latin America" the foreign exchange values of the respective monetary units at the end of 1926 were lower in 7 cases, higher in 2, and practically the same in the other 11, as compared with the values at the end of 1925. The sucre of Ecuador was the only unit higher by any considerable amount than at the end of the previous year, the advance amounting to 9 per cent. The Brazilian milreis was stabilized, for the first time in years, by the law of December 18, 1926. The most serious declines for the year were as follows: Venezuela, 3 per cent; Mexico, 4 per cent; Bolivia, 6 per cent; and Peru, 7 per cent.

Chart IV.—FOREIGN EXCHANGE INDEXES



For the most part the exhange fluctuations were owing to causes wholly outside of the control of the countries concerned. Certain nations—notably Argentina, Uruguay, and Bolivia—were vitally affected by the labor troubles in Great Britain, their most important single market. In Peru and Brazil the low prices of sugar, cotton, and coffee (futures) were mirrored in the lower exchange rates. In Ecuador the decline in the cacao crop might have been extremely serious had not the pyschological influence of the arrival of the American financial experts been effective in maintaining the rates. Foreign loans played no small part in supporting exchanges throughout the year in many of the Latin-American countries.

Chart V.—AVERAGE PRICES OF STOCK ON THE NEW YORK STOCK EXCHANGE



SECURITY MARKETS

The "bull market" of 1925 was the highest and broadest—and perhaps the steepest of any of like duration—in the history of Wall Street. Thus 1926 opened with stock prices at much the highest level in history, and the rise continued until the middle of February. Then came a six weeks' reaction of a violence seldom equaled in financial history. This reaction canceled all the remarkable gain made in the industrial stock average during the preceding six months, and rails fell off almost as badly.

A remarkable rally began in the latter part of May and continued until early October. During these months the advance of the rail average was considerably greater than its net advance during the remarkable "bull" year, 1925. Rails established a new high for all time during this rally, and industrials did very well.

There was a minor break in October like those of 1925. The upward trend during the last two months of 1926 brought industrial stock averages to approximately the same level as at the beginning of the year, while rails showed a considerable gain for the year.

Table 23.—Average Monthly Price Movements of Stocks and Bonds on the New York Stock Exchange

[See footnotes Table 24]

Month	1921	1922	1923	1924	1925	1926	1921	1922	1923	1924	1925	1926
	25 industrial stocks (dollars per share)						25 railroad stocks (dollars per share)					
January	86.03	82.99	110.35	112.14	135.38	179.90	53.87	54.21	61.71	60.35	79.97	92.40
February	86.13	86.47	115.03	111.83	138.48	179.55	53.84	56.57	65.28	60.47	80.90	90.83
March	83.83	89.20	116.03	109.82	136.96	158.05	52.03	57.98	65.06	61.09	79.07	87.35
April	84.73	94.59	113.46	106.71	135.40	144.70	51.59	61.62	63.04	62.09	76.28	86.33
May	85.53	96.84	108.18	106.43	142.34	146.95	53.59	62.92	60.73	62.53	79.50	88.04
June	72.71	96.69	105.94	108.93	144.42	155.81	51.18	61.49	60.95	65.07	79.57	92.36
July	72.95	99.06	102.52	113.53	149.25	163.01	53.28	63.72	58.07	68.39	80.23	93.77
August	70.22	103.68	102.95	119.18	158.16	172.22	52.98	67.64	56.24	71.06	83.63	96.14
September	74.10	107.02	102.74	116.73	162.83	172.26	54.10	68.70	57.14	70.28	84.73	99.43
October	75.43	111.25	101.78	117.29	173.56	164.63	53.51	68.53	57.06	69.63	84.92	94.93
November	79.14	106.09	105.44	124.11	177.26	171.95	54.19	63.46	58.30	76.00	88.56	97.43
December	81.73	109.08	108.88	134.29	177.74	179.36	54.40	61.71	58.25	79.15	92.45	100.35
	Price index, 40 bonds (per cent of par)						Bond yields, municipal bonds (per cent)					
January	60.41	70.22	73.76	72.23	76.07	78.59	5.06	4.41	4.14	4.32	4.16	4.17
February	60.25	70.71	73.42	72.15	76.82	78.69	5.05	4.39	4.11	4.36	4.11	4.15
March	59.21	71.85	71.65	72.35	76.38	79.32	5.07	4.35	4.13	4.34	4.10	4.14
April	59.39	73.69	71.29	72.67	76.51	80.16	5.11	4.15	4.18	4.30	4.07	4.12
May	59.46	74.72	71.71	73.17	77.97	80.68	5.12	4.18	4.22	4.26	3.99	4.12
June	57.75	74.28	71.80	74.59	78.46	80.82	5.18	4.18	4.24	4.15	4.00	4.10
July	58.89	75.44	71.40	75.81	77.56	80.56	5.26	4.19	4.29	4.14	4.07	4.11
August	59.59	76.80	71.86	75.93	76.34	80.48	5.24	4.15	4.35	4.12	4.15	4.12
September	60.74	77.47	71.22	75.40	76.92	80.42	5.22	4.09	4.40	4.11	4.21	4.16
October	59.83	75.96	70.56	75.74	76.73	80.31	5.13	4.14	4.39	4.11	4.26	4.16
November	62.13	74.10	70.96	76.06	77.12	81.36	5.00	4.18	4.37	4.13	4.22	4.14
December	64.10	74.11	71.04	75.77	77.56	81.95	4.50	4.16	4.37	4.16	4.23	4.13

Sources: Stock prices, The Annalist; bond price index, Dow, Jones & Co.; bond yields, The Bond Buyer.

Table 24.—Annual Average Price Movements of Stocks and Bonds on the New York Stock Exchange

Year	Stocks (dollars per share)[1]		Price index, 40 bonds (per cent of par)[2]	Bond yields, municipal bonds (per cent)[3]	Year	Stocks (dollars per share)		Price index, 40 bonds (per cent of par)	Bond yields, municipal bonds (per cent)
	25 industrials	25 railroads				25 industrials	25 railroads		
1913	58.19	82.97		4.45	1920	107.21	55.94	59.70	5.04
1914	58.08	77.57		4.16	1921	79.38	53.21	60.15	5.02
1915	75.35	73.16	76.76	4.23	1922	98.58	62.38	74.11	4.21
1916	99.14	80.05	80.49	4.06	1923	107.78	60.15	71.72	4.27
1917	85.44	69.12	75.58	4.31	1924	115.08	67.18	74.32	4.21
1918	80.98	61.34	69.84	4.58	1925	152.65	82.48	77.04	4.13
1919	105.77	62.06	69.07	4.50	1926	165.70	93.27	80.28	4.14

[1] Averages of daily closing prices for these stocks.

[2] Combined from the yields of the average prices of the selected bonds for each day of the month, the average yield being capitalized at 4 per cent to give the combined index.

[3] Average market yield of bonds of 20 large cities at the end of each month since Jan. 31, 1917; previous figures are for the first of the month.

Sources: Stock prices, The Annalist; bond price index, Dow, Jones & Co.; bond yields, The Bond Buyer.

Bond prices rose during the year by more than 5 per cent. The rise was very gradual, as reflected in the average monthly prices of 40 bonds shown in Table 23. Except for a three point decline in the spring and summer of 1923, average bond prices have shown a definitely upward trend since June, 1921. The average for December, 1926, was 42 per cent above the average for June, 1921. Bonds, like stocks, closed 1926 at what was probably the highest level in American history. Foreign bonds had a very good year; but despite the stimulus of improving European conditions, the older foreign issues at least do not seem to have risen so rapidly as domestic issues.

The volume of stock transfers on the New York Stock Exchange in 1926 was about 1 per cent less than in the record-breaking year 1925. Transfers of railway and industrial bonds, however, declined by more than 14 per cent. Transfers of United States Government bonds were about one-third less in 1926 than in 1925; the steadily reduced activity in all recent years is owing to retirements by the Treasury and to the gradual accumulations by long-term investors. The sharp increase in foreign bond transactions is due, conversely, to the enormous new flotations of such issues in the United States.

Table 25.—New York Stock Exchange Transactions

Item	1920	1921	1922	1923	1924	1925	1926
Stocks (millions of shares)	227	173	259	236	282	454	451
Bonds (millions of dollars):							
Railway and miscellaneous	827	1,043	1,905	1,568	2,345	2,332	2,004
United States Government	2,861	1,957	1,873	796	877	391	262
State, municipal, and foreign	289	324	592	425	582	661	721

Source: Commercial and Financial Chronicle.

Statistics of brokers' loans, as reported to the New York Stock Exchange by its members, were published early in 1926 for the first time, and they were the topic of much discussion, particularly during the first few months of the year. (Table 26.) The peak of these loans, just before the severe break in stock prices in the middle of February, was above $3,600,000,000. The publication of this large total probably contributed to the drop in prices which followed. During the six weeks ended March 31, the volume declined by more than $600,000,000. The subsequent rise of stocks to new high records may be assumed to have been caused somewhat less by margin purchases, since brokers' loans did not again reach their February peak. Weekly statistics of brokers' loans from October 5, 1917, to January 27, 1926, as reported to the Federal Reserve Board by the "daily reporting member banks in New York," were published in the Federal Reserve Bulletin for November, 1926.

Table 26.—Brokers' Loans Outstanding Each Month, 1926

NOTE.—In millions of dollars. Figures cover net loans obtained by New York Stock Exchange members on collateral contracted for and carried in New York.

Date	Total	Demand loans	Time loans	Date	Total	Demand loans	Time loans
Jan. 30	3,513	2,517	996	July 31	2,998	2,283	715
Feb. 27	3,536	2,495	1,041	Aug. 31	3,142	2,364	778
Mar. 31	3,000	2,033	967	Sept. 30	3,219	2,419	800
Apr. 30	2,836	1,970	866	Oct. 31	3,111	2,289	822
May 28	2,767	1,987	780	Nov. 30	3,129	2,330	800
June 30	2,926	2,225	701	Dec. 31	3,293	2,542	751

Source: Commercial and Financial Chronicle.

Capital Issues.

Security issues during 1926 reached the enormous total of about $7,400,000,000, according to Table 27. This is about 4 per cent more than the record-breaking total of the previous year, although there was a 5 per cent decrease in the volume of new issues by the States and minor political divisions. New issues of bonds and notes were in slightly greater proportion than in 1925; but the proportion was less than in any of the four years preceding 1925.

Table 27.—Capital Flotations

[Amounts in millions of dollars. Figures include both new capital and refunding]

Year and quarter	All issues	Domestic			Foreign government and other foreign	Percentage of domestic corporate issues in form of—		
		Corporate	State, county, and municipal	Farm-loan banks		Stocks	Bonds and notes maturing— Within 5 years	Bonds and notes maturing— After 5 years
1920	4,010	2,788	699	--------	522	37	22	40
1921	4,204	2,270	1,236	122	577	12	9	78
1922	5,236	2,949	1,144	386	756	21	5	74
1923	4,990	3,179	1,071	393	347	23	6	71
1924	6,352	3,521	1,408	179	1,245	25	10	66
1925	7,126	4,222	1,408	188	1,307	30	7	63
January–March	1,869	1,199	330	61	279	21	12	67
April–June	1,837	1,087	426	50	274	30	4	67
July–September	1,593	848	344	14	387	33	6	61
October–December	1,828	1,088	309	63	368	37	7	57
1926	7,397	4,574	1,340	131	1,351	27	6	67
January–March	1,992	1,359	338	39	257	34	7	59
April–June	2,023	1,206	381	76	360	22	8	70
July–September	1,472	826	292	12	342	21	6	73
October–December	1,910	1,183	329	5	393	27	5	68

Source: Commercial and Financial Chronicle.

The factors that established the high record of capital issues in 1925 continued in operation throughout 1926; reduced taxation, public debt retirement, and increased savings. It is rather surprising that the increase was not greater in view of the increased corporate dividends paid in 1926, the decline of prices, and the almost universal prosperity of business.

Our continued growth as a creditor nation is seen in the record-breaking volume of our foreign loans during 1926. A new record was established, also, in the number of foreign issues underwritten in the United States, 214; the number of issues underwritten in 1925 and 1924 were, respectively, 152 and 103. During the first three quarters of 1926, Germany was the heaviest single borrower while Chile led during the last quarter. During the year German corporations and political divisions floated in this market a total of $301,454,000 of capital securities.

UNITED STATES GOVERNMENT FINANCE

During the fiscal year 1925–26, the improvement in American public finance which has been evident in recent years was maintained. Taxes were again reduced; there was a large budget surplus; public-debt retirement, particularly of early maturities, continued at a rapid pace; and interest on public debt diminished correspondingly.

Table 28.—Ordinary Receipts and Expenditures of United States Government (Cash Basis as per Daily Treasury Statements, Unrevised)

[In millions of dollars. Data are for years ended June 30]

Item	1920	1921	1922	1923	1924	1925	1926
Ordinary receipts	6, 695	5, 625	4, 109	4, 007	4, 012	3, 780	3, 963
Surplus over expenditures chargeable against ordinary receipts	212	87	314	310	505	251	378
Expenditures chargeable against ordinary receipts	6, 482	5, 538	3, 795	3, 697	3, 507	3, 530	3, 585
Public debt retirement chargeable against ordinary receipts	79	422	423	403	458	467	487
Special expenditures	3, 228	2, 253	1, 236	1, 344	1, 215	1, 226	1, 271
Interest on public debt	1, 020	999	991	1, 056	941	882	832
Refunds of customs and internal revenue	47	58	83	154	148	171	210
Postal deficiency	--------	130	64	32	13	23	40
Operations in special accounts	1, 689	930	61	50	55	[1] 1	10
All other special expenditures	472	136	38	52	58	151	180
General expenditures	3, 175	2, 863	2, 136	1, 950	1, 833	1, 837	1, 827
War and Navy Departments	2, 347	1, 752	932	726	681	708	668
Veterans' Bureau and pensions	310	597	662	726	637	603	612
All other departments, independent offices, etc	518	514	542	498	515	526	547

[1] Excess of credits, deduct.

Source: Treasury Department.

Receipts and Expenditures.

Despite important tax reductions in the revenue act of February 26, 1926, and an increase of about 1½ per cent in ordinary expenditures (cash basis), the fiscal year 1926 closed with a large surplus in our national budget. This was the seventh successive annual surplus.

The revenue act of 1926 abolished the capital-stock tax, and it reduced the income tax, the estate and inheritance taxes, and many excise taxes. Further tax revision may follow the congressional investigation of internal revenue taxation now in progress as provided in that act.

It will be noted that there was an increase in all items of expenditure shown in Table 28 except the combined expenditures of the War and Navy Departments and interest on the public debt. The latter economy was effected by refunding at lower rates as well as by further debt retirement. Fiscal retrenchment by a nation growing so rapidly as ours might be bad economy; the Secretary of the Treasury, in his annual report for 1925–26 (p. 7), states that "it does not seem probable that we can contemplate a reduction in Government expenditures in the next few years." The report later alludes (pp. 27–28) to "the expanding sphere of governmental activity required by the increasing congestion of population and made possible by augmented public wealth and the rising standards in governmental activities and efficiency, a necessary concomitant to a rising general standard of living in a progressive country." Relatively, however, fiscal retrenchment seems to have been achieved; the Nation has grown much more in the past few years than our Government expenditures have increased.

Table 29.—Ordinary Receipts and Expenditures Chargeable Against Them

[In millions of dollars. Figures are on the basis of warrants issued (net)]

Yearly average or year ended June 30	Ordinary receipts					Expenditures chargeable against ordinary receipts				Surplus (+) or deficit (−)
	Total	Customs	Income and profits tax	Miscellaneous internal revenue	All other	Total	Interest on the public debt	Public debt retirements	All other	
1891–1895	353	177	(1)	150	26	364	29		334	−11
1896–1900	435	185		207	43	457	38		419	−23
1901–1905	559	260		255	44	536	28		508	+24
1906–1910	629	311	[2] 21	257	57	639	23		617	−11
1911–1915	710	289	50	307	64	720	23		698	−10
1916–1920	3,489	226	1,976	875	412	8,343	377		7,966	−4,854
1921–1925	4,205	464	2,122	1,038	581	3,698	972	434	2,292	+507
1917	1,124	226	360	450	89	2,086	25		2,061	−962
1918	4,180	183	2,839	857	302	13,792	198		13,594	−9,611
1919	4,654	183	2,601	1,239	631	18,952	616		18,336	−14,298
1920	6,704	324	3,957	1,442	982	6,142	1,024		5,118	+563
1921	5,585	308	3,228	1,352	697	4,891	997	423	3,472	+693
1922	4,104	358	2,087	1,121	538	3,618	989	422	2,206	+486
1923	3,847	562	1,691	936	658	3,648	1,055	403	2,190	+199
1924	3,884	545	1,842	953	545	3,404	939	458	2,008	+480
1925	3,608	549	1,762	828	470	[3] 2,931	882	467	[3] 1,582	+677
1926	3,908	580	1,974	863	492	3,518	831	487	2,199	+391

[1] Less than $500,000.
[2] Figures for 1910.
[3] After deducting $499,000,000 on account of retirement of capital stock of War Finance Corporation.
Source: Treasury Department.

Table 29 is a summary of American Budgets for longer periods of time, on the net warrant basis. Expenditures on this basis may differ widely from the cash basis, because they include unexpended balances to the credit of disbursing officers at the end of the year and do not include expenditures under unexpended balances at the beginning of the year, and because of other adjustments. The most important difference between expenditures given in this table and those given in the preceding table was in 1924–25 when there was deducted from the warrant expenditures a refund of $499,000,000 on account of retirement of the capital stock of the War Finance Corporation.

Receipts from customs duties during 1925–26 were 3.2 per cent larger than those of the record-breaking year 1922–23. Heavy imports largely account for this new record, although our total imports in 1926 were less than in 1920.

Public Debt.

The gross debt of the United States Government on June 30, 1926, was $19,643,000,000, or $170 per capita; but $246,000,000 of this consisted of noninterest-bearing items such as the circulation of United States notes, less the gold reserve against them. By the end of the calendar year 1926, the gross debt had been reduced to $19,075,000,000. The peak of our national indebtedness, just after the war, was about $26,600,000,000; so the total reduction to date is about $7,500,000,000. Our debt reduction during the fiscal year 1925–26 was $873,000,000; but during the calendar year 1926 it was $1,173,000,000. Funds devoted to debt reduction during the fiscal year came from three sources: $487,000,000 from budgetary appropriations for the purpose; $378,000,000, or the entire surplus of the Budget; and $8,000,000 from the general fund balance. Debt reduction must long remain one of the major objectives of our public finance, if only for the reason that interest payments on it are so colossal. Interest on the public debt during the fiscal year was $831,000,000—over $7 per capita.

Table 30.—Gross Debt of the United States as of June 30

[In millions of dollars]

Year	Amount	Year	Amount	Year	Amount	Year	Amount
1860	65	1895	1,097	1918	12,244	1925	20,516
1865	2,678	1900	1,263	1919	25,482	1926	19,643
1870	2,436	1905	1,132	1920	24,298	Dec. 31:	
1875	2,156	1910	1,147	1921	23,976	1924	20,979
1880	2,091	1915	1,191	1922	22,964	1925	20,248
1885	1,579	1916	1,225	1923	22,350	1926	19,075
1890	1,122	1917	2,976	1924	21,251		

Source: Treasury Department.

At the close of the war one of the most urgent fiscal problems of the Government was the funding of approximately $10,000,000,000 of obligations maturing within five years. This sum has since been reduced by more than one-half, by retirements and by fundings; the cost of long-term money to the Government has declined, and the short-term debt has ceased to be an urgent problem. All bonds of our Government are selling above par. During the fiscal year 1925–26 a Government issue of $252,000,000 of nine-months' certificates of indebtedness bearing 3¼ per cent interest was oversubscribed. Most of the new loans obtained by the Government during the year bore 3¾ per cent interest.

Table 31.—Interest-Bearing Debt of the United States, by Maturity

[Amounts in millions of dollars]

Date	Total interest-bearing debt	Maturing within 1 year		Maturing in from 1 to 2 years		Maturing in from 2 to 5 years		Maturing after 5 years	
		Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Aug. 31, 1919	26, 349	4, 201	15. 9			5, 045	19. 1	17, 103	64. 9
Apr. 30, 1921	23, 760	2, 820	11. 9	572	2. 4	4, 209	17. 7	16, 158	68. 0
Dec. 31, 1921	23, 188	2, 196	9. 5	4, 087	17. 6	814	3. 5	16, 091	69. 4
June 30, 1922	22, 711	4, 336	19. 1	366	1. 6	2, 044	9. 0	15, 965	70. 3
Dec. 31, 1922	22, 483	2, 438	10. 8	754	3. 4	2, 643	11. 8	16, 648	74. 0
June 30, 1923	22, 008	1, 393	6. 3	1, 432	6. 5	2, 647	12. 0	16, 535	75. 1
Dec. 31, 1923	21, 643	1, 655	7. 6	1, 324	6. 1	5, 634	26. 0	13, 031	60. 2
June 30, 1924	20, 982	2, 328	11. 1	927	4. 4	4, 817	23. 0	12, 910	61. 5
Dec. 31, 1924	20, 712	1, 710	8. 3	1, 142	5. 5	4, 193	20. 2	13, 666	66. 0
June 30, 1925	20, 211	1, 505	7. 4	1, 182	5. 8	3, 567	17. 6	13, 957	69. 1
Dec. 31, 1925	19, 982	1, 868	9. 3	1, 135	5. 7	3, 030	15. 2	13, 949	69. 8
June 30, 1926	19, 384	1, 664	8. 6	500	2. 6	2, 780	14. 3	14, 440	74. 5
Dec. 31, 1926	18, 823	1, 773	9. 4	2, 341	12. 4	267	1. 4	14, 440	76. 7

Source: Treasury Department.

War-Debt Payments.

During 1926 the World War Foreign Debt Commission, created by Congress on February 9, 1922, practically completed its labors. All war debts to our Treasury by former associated powers have been funded by duly ratified treaties except those of Armenia, Liberia, Russia, France, and Greece; and the commission went out of existence on February 9, 1927. The Armenian and Russian Governments are not recognized by this Government, and the Liberian debt is only about $30,000. France has signed but has not ratified a debt-funding treaty with our Government. Greece "has requested additional advances under credits heretofore established," and "the commission has taken the position that it will not make such advances without specific authority from Congress." The whole question of the war debts will be covered in a volume to be issued shortly by the Treasury Department.

Table 32 contains a schedule of the payments of principal and interest received during the calendar year from foreign governments.

Table 32.—Payments Received in Calendar Year 1926 From Foreign Governments on Account of Principal and Interest Due on Obligations

Government	Principal	Interest
Belgium	$1,224,160.70	$1,870,000.00
Czechoslovakia	3,000,000.00	
Estonia		100,000.00
Finland	49,000.00	265,890.00
France	386,686.89	20,367,057.25
Great Britain	25,000,000.00	135,900,000.00
Hungary	10,230.00	58,885.96
Italy	5,000,000.00	
Lithuania	$30,225.00	$93,153.38
Nicaragua	11,500.00	601.00
Poland		1,500,000.00
Rumania	200,000.00	
Russia		[1] 14,150.44
Yugoslavia	207,112.39	
Total	35,118,914.98	160,169,738.03

[1] Paid in sterling.

Source: Treasury Department.

INDEX

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page

rasives 377
ceptances, bank **645**, 642, 647
etate of lime 565, 573
ids 72, 562–564, 567, 573–576
len, trade of United States with 153
lvertising, statistics of 49, 50, 559
ronautics **627**, 447
rica, trade of United States with **161**, 113–122
ricultural machinery and implements **423**, 30, 366, 403, 404
ricultural paper 642
ricultural products and foodstuffs **163**, 2, 16–19, 32, 41, 70–76, 585, 588
  General review **163**
  Canned goods **252**
  Cotton **205**
  Dairy products **248**
  Livestock and meat products **235**
  Sugar **211**
  Tobacco **219**
  Wheat and flour **196**
  See also Foodstuffs, manufactured; Individual commodities; Prices; Foreign trade.
r Commerce Act 627
rcraft **447**, 627, 628
rports 629
rways 630
aska 126, 258, 400
bania, trade of United States with **152**, 140
cohol (methanol) 565, 573, 575
geria 234
  Trade of United States with 161
uminum **398**, 30, 377
uminum compounds 564, 573, 575
nerican Telephone & Telegraph Co 634
nmonium compounds 573, 575. 577
imal fats and oils 189, 245–248
imals and animal products **235**, 2, 11, 12, 39, 44, 57, 71, 72, 81, 164–166, 179, 181, 182, 188–191, 257, 585, 588.
  Foreign trade in 103–110
ples 41, 253, 256
prenticeship, building trades 328
ricots 253, 256
abia, trade of United States with 153, 154
gentina [1] 86, 196, 203–206, 234, 266, 492
  Trade of United States with **136**, 123–125, 130
tificial silk. *See* Silk.
ia, trade of United States with **153**, 113–122
paragus 253
stralia [1] 77, 86, 196, 203–205, 234, 266, 492, 619
  Trade of United States with **160**, 123–125. 153
stria [1] 196, 234, 469
  Trade of United States with **149**, 140
tomobile tires 456–468, 7, 10, 11, 449

Page

Automotive products **430**, 7, 8, 11, 12, 30, 33, 57, 366, 606–609
Aviation. *See* Aeronautics.
Azores, trade of United States with 140, 150
Bags and suit cases. *See* Luggage.
Baking powder 562, 573
Balance of trade 84, 88, 115, 116
Balkans, trade of United States with **152**, 140
Baltic States, trade of United States with **150**, 140
Bank clearings **647**
Bank failures 51
Bank notes 640
Banking and finance **636**
Barley **167–185**, 41, 72, 192–196, 199
Bars, iron and steel 366, 368, 375, 378, 382
Basic industries 2, 3
Bauxite **398**, 612
Beans 168, 169, 172, 253
Beef and veal **240**, 181, 237
Bee products 165
Belgian Congo,[1] trade of United States with 161
Belgium [1] 203, 234, 266, 382, 468, 493, 619, 655, 667
  Trade of United States with **144**, 123–125, 140
Belting **543**, 465, 467, 469, 524, 541
Bermuda 130
Binder twine 516, 517
Blackings, stains, and dressings **544**, 541, 562
Blast furnaces 30, 65, 362, 365
Bleaching compounds 564, 573
Bluing 562
Bolivia, trade of United States with **138**, 130
Bonds, prices, sales, and issues **660**, 598
Bone black 562–564, 573
Books and printed matter 554, 558
Boots and shoes **535**, 10, 11, 44, 45, 49, 57, 65, 71, 72, 457–459, 463–469
Borax 573
Bottles and jars 356
Brass and bronze 30, 377, 401
Brazil [1] 86, 234
  Trade of United States with **135**, 109, 110, 123–125, 130
Brick **353**, 11, 71, 72, 327
Bridges 324, 366
British Africa 161, 162
British dominions, merchant marine 615
British East Indies, trade of United States with **155**, 153
British Guiana 130
British Honduras, trade of United States with 130
British Malaya **156**, 123–125, 153
British West Indies, trade of United States with **134**, 130
Broadcasting, radio 632
Broker's loans 662
Buckwheat 41, 168, 199

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page

Building. *See* Construction.
Building and loan associations 21, 330, 652
Building codes 332
Building costs 326, 327
Building materials. *See* Construction materials.
Bulgaria, trade of United States with **152**, 140, 196, 234
Burlaps 516, 517
Business buildings, construction 312, 317, 320–322, 324
Busses, automobile. *See* Automotive products.
Butter **248**, 10, 11, 30, 71, 181–183
Cables, ocean **635**
Calcium compounds 573
Calves. *See* Cattle.
Camphor 576
Canada [1] 77, 86, 196, 203–205, 234, 266, 267, 345, 433–437, 441, 468, 555
    Trade of United States with **128**, 123–125
Canal traffic 609, 610, 612, 625
Canary Islands, trade of United States with 161
Candles 562
Candy, sales 49
Canned foods **252**, 30
Capital:
    Bank 637, 644
    Flotations 652, 662
    Industrial 20
    Railway 597
Car loadings, railway 2, 585–588
Car surpluses and shortages, railroad 585, 586
Carbon black 310, 562–564
Cars, motor. *See* Automotive products.
Cars, railway **415**, 30, 366, 599–601
Carpets 472, 494, 495
Cash registers and calculating machines 403, 404
Cattle **235**, 40, 72, 181–183
Cement **348**, 11, 12, 30, 72, 327
Census of manufactures **24–33**, 14, 17
    See also Individual industries.
Central America, trade of United States with **132**, 109, 124, 125, 130
Cereals 42, 71, 72, 78, 165–169, 172, 173, 179–185, 188–196
Ceylon **156**, 153
Chain stores, sales 48, 49
Chains 377
Cheese **248**, 11, 71, 182, 183
Chemicals **561**, 5–9, 29, 30, 32, 56, 70–76, 81
Chickens **248**, 71, 181, 236
Chicle 576
Chile [1] 86
    Trade of United States with **138**, 109, 110, 124, 125, 130
China [1] 86, 234
    Trade of United States with **158**, 123–125, 153, 513
Chinese wood oil 569, 570, 577
Cigarette paper 554
Cigarettes **225–233**, 9, 11, 12

Page

Cigars **225–233**, 11, 30, 49
Circulation, money in **652**
City planning 331
Clay products **353**, 5–9, 11, 29, 30, 32, 56
    See also Brick.
Clearings, bank **647**
Clearances and entrances, ocean **620**, 614
Cloth. *See* Cotton goods; Wool manufactures; Silk goods.
Clothing **470**, 30, 65, 70, 80, 81, 518
Coal **272**, 12, 38, 71, 72, 261–265, 290, 416, 610
Coal equivalent of other fuels 262, 263, 268
Coal-tar products 564, 565, 568–576, 585, 588
Coffee 189
Coke **287**, 11, 12, 30, 72, 272, 290, 588
Colombia, trade of United States with **135**, 123–125, 130
Commercial failures 50, 51
Commercial regions, trade of United States with 120–122
Commercial paper 642, 647
Communication, telegraph, telephone, radio **632**
Compressors, air 407
Condensed milk 11, 30, 248, 252
Confectionery 49
Consolidations, railway 599
Construction **312**, 59, 64
    Railway 601, 602
    Ships 619
Construction codes 332
Construction materials **335**, 10, 13, 70–76, 81, 312, 314, 327, 332, 333
Consumers of electricity 270
Containers for packing 606
Continental United States, trade with outlying possessions 126
Continents, trade of United States with 112–122
Cooperage 337, 342
Copper **382**, 11, 12, 38, 72
Copper sulphate 573
Cordage and twine 515–517
Corn 41, 72, 166–169, 172, 173, 180, 182–185, 192–196, 199
    Canned 253, 254
    Meal and flour 195, 199
Cosmetics. *See* Perfumery and cosmetics.
Cost of construction 326, 327
Cost of living **79**, 67
Costa Rica, trade of United States with 130
Cotton **205**, 11, 12, 41, 42, 72, 165–169, 172, 173, 179–183, 188–191, 479–482
Cotton goods **473**, 30, 57, 65, 71, 72, 470, 472
Cottonseed and cottonseed oil 11, 30, 72, 78, 168, 169, 179, 180, 182, 207
Cows, milch 236, 248
Cream separators 424
Crops. *See* Agricultural products and foodstuffs: Cereals, and the individual crops.
Crude materials. *See* Raw materials.
Crude oil. *See* Petroleum.
Cuba [1] 86, 217, 234
    Trade of United States with **133**, 123–125, 130

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Currency. *See* Money.
Customs receipts 664
Cutlery 30, 362, 377
Cyprus. *See* Malta.
Czechoslovakia [1] 196, 234, 266, 469, 667
  Trade of United States with **149**, 140
Dairy products **248**, 78, 165, 179, 182, 188–191
Damage to freight 604, 605
Danzig, trade of United States with **150**, 140
Debits to individual bank accounts **648**, 649, 650
Debt, United States Government **665**
Debts of foreign countries to United States, status of **666**
Denmark [1] 203, 234, 266, 619
  Trade of United States with **142**, 123–125, 140
Department stores, sales 2, 47, 48
Deposits. *See* Banking and finance.
Dextrine 573
Discount rates **646**
Discounts. *See* Banks and banking.
Dividends:
  Railway 597, 598
Dominican Republic [1] 234
  Trade of United States with 130, 134
Drainage and irrigation construction 324
Dried fruits **252**
Druggists' rubber sundries 458, 465
Drugs, pharmaceutical preparations, etc 44, 45, 49, 71, 562–564, 567, 570, 573, 574, 576, 577
  See also Chemicals.
Dry goods, wholesale sales 44, 45
  See also Cotton goods; Wool manufactures; Silk goods.
Dutch East Indies [1] 234
  Trade of United States with **156**, 123–125, 153
Dutch Guiana, trade of United States with 130
Dutch West Indies 130, 134
Dutiable imports 541
Dyes and dyestuffs 562–565, 573–576
  See also Coal-tar products.
Dynamite 573
Earnings of labor 61, 62
Economic classes of merchandise trade **97–102**, 118, 119
Ecuador, trade of United States with **139**, 130
Educational buildings, construction 317, 320, 321, 325
Education, effect on industry 20, 328
Efficiency in production 14, 15, 19, 410
Efficiency in fuel consumption 263
Eggs **248**, 40, 181–183, 188–191
Egypt [1] 234
  Trade of United States with **161**
Electric equipment and materials **418**, 30, 57, 260, 265, 270, 403, 404
Electric light and power **265**
Electric locomotives 419
Electric railway cars 415
Electrification, industrial 271
Elevators 406, 407
Emigration **59**
Employment of labor **52**, 276, 407, 590

Page
Enameled ware 11, 377
Engineering construction 324
England. *See* United Kingdom.
Entrances and clearances, ocean **620**, 614
Equipment:
  Power 260, 261
  Railway 599
Essential oils 564, 567, 570, 573, 577
Estonia 667
  Trade of United States with **150**, 140, 262
Europe:
  Agricultural products, trade in 187, 195, 203
  Trade of United States with **140**, 113–122
Excavation construction 324
Exchange, foreign **655**
Expenditures, United States Government **663**
Explosives 562–564, 570, 572, 573, 576
Exports, relationship to production **90–96**
  See also Foreign trade, and under individual commodities.
Express, air 631
Factories, construction costs of 327
  Employment in **52–58**
  Equipment 260, 265
  Production 2
Failures, commercial and bank 50
Far East:
  Trade of United States with **154**, 120, 122, 153
  See also Asia; Australia.
Farm labor and wages **59**, 65, 186
Farm land, ownership 171
Farm products. *See* Agricultural products and foodstuffs.
Fats. *See* Animal fats and oils.
Federal Government construction 324
Federal reserve banks **639**, 636
Ferromanganese 378
Ferrosilicon 378
Fertilizers and fertilizer materials 30, 71, 562–564, 570–576
Fibers, miscellaneous textile **515**
Finance and banking **636**
Finances:
  United States Government **663**
  Life insurance companies 651
  Railways **592**
Financing, construction 329
Finland 345, 555, 667
  Trade of the United States with **149**, 140
Fire brick 354
Fish **257**, 40, 253
Five-and-ten-cent store sales 49
Flavors 565
Flax 165, 517
Flaxseed 41, 165, 167, 169, 172, 173, 182
Flooring 10, 11, 13, 458
Flour and flour milling **196**, 11, 30, 185, 192–195
Fodders and feeds 189
  See also Hay.
Foods, canned **252**
Foodstuffs, manufactured 6–11, 28–30, 55, 66, 67, 70, 80, 81
  See also Agricultural products; Foreign trade.

---

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Footwear. *See* Boots and shoes.
Forage. *See* Hay.
Foreclosures. *See* Receiverships.
Foreign countries:
  Electrical development 266
  Prices in **76**
  United States share in imports of 86
  United States trade with. *See* Individual countries.
Foreign exchange **655**
Foreign governments debts to the United States 666
Foreign loans 88
Foreign trade of the United States **82–162**
  Agricultural products 90, 94, 97–110, 118, 187
  Balance of trade 84, 88, 115, 116
  Commodities, principal individual 103–109
  Comparison with pre-war 85, 98, 103, 104, 106, 107, 109, 113
  Continental United States 126
  Countries, individual **128–162**
  Economic classes 97–102, 118, 119
  Entrances and clearances 614, 620
  Exports, relationship to production **90–96**
  Free and dutiable imports 541
  Geographical distribution 111–126
  Gold and silver movements 84, 655
  Imports, relationship to raw materials consumed 96
  Outlying possessions 126
  Physical volume 88
  Price changes, influence of **88**
  Volume of water-borne **622**
  See also Individual commodities and Countries; World production, etc.
Forest products 2, 3, 39, 94, 165, 585, 588
  See also Lumber; Paper; Naval stores.
Formaldehyde 573
Formosa. *See* Taiwan.
Foundry equipment, etc 57, 408
France [1] 77, 86, 196, 203, 234, 262, 266, 267, 382, 414, 468, 493, 615, 619, 655, 667
  Trade of United States with **145**, 123–125, 140
Freight cars. *See* Cars.
Freight traffic, railroad **579**
French Africa 161
French Guiana, trade of United States with 130
French Indo-China,[1] trade of United States with **156**, 153
French West Indies 130
Fruits **252**, 42, 79, 165, 172, 179, 188–191
Fuel **260**, 38, 70–76, 80, 81, 262, 267, 268, 596
Fuel oil 293, 299–302
Fur goods 519
Furnaces 377
Furniture 30, 70–76, 80, 81, 337, 342
Galvanized iron and steel 368, 375, 377, 382
Gas, manufactured **289**, 30
Gas, natural **309**, 262–265
Gas oil 293, 299–302
Gases, compressed and liquefied 564
Gasoline 293, 299–302, 309

Page
Germany [1] 77, 86, 196, 203, 234, 262, 266, 267, 382, 414, 468, 493, 555, 615, 619
  Trade of United States with **147**, 123–125, 140
Gibraltar, trade of United States with 140, 150
Glass **355**, 5–7, 28–30, 32, 56, 348
Glazed ware 377
Gloves **543**, 487, 505, 518, 535
Glucose. *See* Starch.
Glue 562
Glycerin 573, 576
Gold:
  Movements of 84, 654
  Production of 38
Golf balls 469
Gozo. *See* Malta.
Grain. *See* Cereals, and individual grains.
Gravel 358
Greases 562
Great Britain. *See* United Kingdom.
Great Lakes, traffic 609, 610
Greece [1] 234, 619
  Trade of United States with **152**, 140
Groceries, sales of 44, 45, 49
Guam 126
Guatemala, trade of United States with 130
Gums and resins 569–573, 575, 576
Haiti, trade of United States with 130, 134
Hardware 30, 44, 45, 362, 377
Harness and saddlery 543
Hats 494, 495, 517, 518, 519
Hawaii 126, 212, 218
Hay 41, 165–169, 172, 173, 180, 182
Heat, industrial 260
Hejaz. *See* Arabia.
Hemp 516, 517
Hennequen. *See* Sisal.
Hides and skins **524**, 72, 189, 526–528
Hogs **236**, 40, 72, 181, 182
Hominy and grits 195
Honduras, trade of United States with 130
Honey 165
Hong Kong, trade of United States with **158**, 153, 156
Hoops, steel 366, 368, 375, 382
  See also Cooperage.
Horsepower, of prime movers 22, 25–31, 199, 271
  Of motors 265, 271
Horses 236, 241
Hose, rubber 465, 469
Hosiery **505**, 65, 487
Hospitals, construction 320, 321, 326
Hours of labor. *See* Wages.
House furnishings 70–76, 80, 81
Housing 80, 81
See also Residential construction.
Hungary [1] 196, 667
  Trade of United States with **149**, 140
Ice cream 10, 11
Iceland, trade of United States with 140
Immigration **59**
India [1] 77, 86, 196, 203–205, 234, 267
  Trade of United States with 156, 123–125, 153
Indo-China. *See* French Indo-China.
Industrial buildings, construction 312, 315, 317, 320–324, 409

---

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Industries. *See* Manufactures, Mineral products, Forest products, and individual commodities or industries.
Ink, 562
Inland water transportation, **609**
Institutions. *See* Hospitals.
Insurance, **650**, 21, 330
Interest: Rates of, **646**
International trade, 203, 234, 344
Investments, bank, 637
Iodine, 576
Iron ore, 38, 361–363, 381, 610
Iron and steel, **360**, 5–13, 28–30, 32, 55, 57, 65, 71, 72
  See also Metals.
Irrigation. *See* Drainage.
Italy[1], 77, 86, 196, 203, 234, 266, 267, 468, 493, 615, 619, 667
  Trade of United States with, **151**, 123–125, 140, 150
Jamaica, trade of United States with, 130
Japan[1], 77, 86, 266, 468, 615, 619, 658
  Trade of United States with, **159**, 123–125, 153, 513
Java and Madura, 219
Jute goods, 515, 516, 517
Kafir. *See* Sorghums.
Kapok, 517
Kerosene, 293, 299–302
Knit goods, **504**, 30, 65, 487
Korea. *See* Chosen.
Kwangtung leased territory, trade of United States with, **158**, 153
Labor, **52**, 186, 328, 591, 596
Labrador. *See* Newfoundland.
Lambs. *See* Sheep; Mutton.
Lamps, etc, 377, 419
Lard and lard compounds, 237, 239, 240, 245, 247
Latin America, 658
  Trade of United States with, **129**, 120, 122
Latvia, trade of United States with, **150**, 140
Lead, **390**, 11, 38, 72, 383
Leather and leather products, **523**, 5–11, 28–30, 32, 55, 71, 72
Legislation re railways, 602
Legumes, 165
  See also Beans; Peas.
Light, electric, **265**
Lignite production, 286
Linen goods, 515, 516
Linseed oil, 570, 573, 577
Lithuania, 667
  Trade of United States with, **150**, 140
Livestock. *See* Animals and animal products.
Loans and discounts. *See* Banking and finance.
Locomotives, railway, **415**, 8–13, 30, 261, 366, 412–414, 419, 599–601
Loss of freight, 604, 605
Lubricating oil, 293, 299–302
Luggage, **544**, 535
Lumber, **335**, 5–13, 28–30, 32, 39, 55, 71, 72, 327, 612

Page
Luxemburg, 379–381
Machine tools, **408**, 403, 405
Machinery, **402**, 21, 28–30, 32, 57, 103–105, 366
Madagascar, 161
Madeira Islands, trade of United States with, 140, 150
Magazine advertising, 50
Mail, air, 630, 631
Mail-order houses, sales, 2, 46
Malaya. *See* British Malaya.
Malt, 195
Malta, trade of United States with, 140
Manila hemp, 516
Manufactured gas, **289**
Manufactures:
  Census of, 24–33
  Electrification of industry, 271
  Employment, **52**
  Foreign trade in, 90–102, 118, 119
  General production statistics, **2, 3, 4**
  Growth of, **13–24**
  Sales, statistics, 10, 13
  Simplified practice, **33–37**
  Transportation by railways, 585
  Wages, **61–65**
  See also individual commodities and industries.
Market conditions. *See* individual commodities; *also* Prices, Wholesale trade, etc.
Mass production, 21
Matches, 570, 573, 577
Materials, construction, **335**, 10, 13, 70–76, 81, 312, 314, 327, 332, 333
Meat products. *See* Animals and animal products.
Medicinal preparations. *See* Drugs, etc.
Member banks, Federal Reserve system, **642**
Merchant marine. *See* Ocean shipping.
Metal working. *See* Machinery.
Metals, **360**, 70–76, 81
  Nonferrous, **382**, 6–9, 11, 28–30, 32, 55, 71
  See also Iron and steel.
Meters, gas and water, 407
Methanol. *See* Alcohol.
Mexico[1], 86, 266
  Trade of United States with, **131**, 123–125, 130, 307
Military and naval buildings, 320
Milk, 40, 71, 182, 248, 249, 252
Millinery and lace goods, 518
Milling, flour, 30, 199, 200
Milo. *See* Sorghums.
Mineral oils. *See* Petroleum.
Mineral products, 2, 3, 37, 94, 96, 585, 588
  See also Metals, and the individual mineral products.
Mining industry, 16–18, 20, 260, 265, 272, 366
Mississippi River, traffic, 611, 612
Money:
  Rates of interest on, **646**
  Stock and circulation of, **652**
  See also Exchange, foreign; Currencies, foreign.

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Money orders, postal ... 49, 50
Morocco,[1] trade of United States with ... 161
Motor cars and trucks. *See* Automotive products.
Motor cycles ... 431, 446
Motors, electric ... 265, 419, 421
Motor ships ... 620
Motor transportation ... **606**
Mowers and reapers ... 424
Mules ... 236, 241
Music stores, sales ... 49
Musical instruments ... 29, 32
Mutton ... 237, 240, 245
Nails ... 368, 375, 382
National banks ... **638**
National debt, United States Government ... 665
Natural gas ... **309–311**
Naval stores ... 39, 562–564, 570, 572, 573, 575, 576
Navigation, aerial ... 628
Needles ... 377
Netherlands [1] ... 203, 234, 266, 615, 619
  Trade of United States with ... **146**, 123–125, 140
Netherlands East Indies. *See* Dutch East Indies.
Newfoundland ... 128
New York State Barge Canal, traffic ... **612**
New York Stock Exchange, transactions ... **659**
New Zealand,[1] trade of United States with ... 492, **160**, 124, 125, 153
Newspapers and periodicals ... 64, 558, 560
Newsprint paper ... **548–555**, 11
Nicaragua ... 667
  Trade of United States with ... 130
Nitrogen compounds ... 564, 576
Noncontiguous Territories of the United States ... 580–586, 126, 212–215, 217, 218, 540, 541
Nonferrous metals. *See* Metals.
North America:
  Trade of United States with ... 113–122
  Northern, trade of United States with ... 115, 116, 128
Norway [1] ... 234, 266, 267, 345, 555, 615, 619
  Trade of United States with ... **142**, 123–125, 140
Notes, bank ... 640
Oats ... 41, 72, 166–169, 172, 173, 180, 182–185, 194, 199
Occupations, shift in ... 15, 16
Ocean shipping ... **614**
Oceania, trade of United States with ... **153**, 113–122
Oil-burning vessels ... 616
Oils *See* Animal fats and oils; Chinese wood oil; Cottonseed oil; Essential oils; Linseed oil; Petroleum; Refined oils; Paints and varnishes; Vegetable oils.
Oleo oil ... 245, 246
Oleomargarine ... 10, 11, 245
Orders, unfilled, for manufactured goods ... 10, 13
  See also Sales.
Ores, volume transported ... 588
Oysters ... 253, 257
Packing for transportation ... 603
Packing industry ... 235
Paints and varnishes ... **562–565**, 30, 570–576
Palestine, trade of United States with ... 153

Page
Panama, trade of United States with ... 130
Panama Canal, traffic ... 339, 614, 625
Paper manufactures ... **545**, 5–11, 28–30, 32, 55, 57, 71
Paraffin wax ... 306
Paraguay, trade of United States with ... **138**, 130
Passenger traffic ... 581, 589, 590, 611, 631
Pay-roll index ... 52–58
Peaches ... 41, 253, 255, 256
Peanuts ... 166, 168, 169, 172
Pears ... 41, 253, 255
Peas ... 172, 253, 254
Perfumery and cosmetics ... 564, 569, 570, 572, 573, 575, 576
Persia, trade of United States with ... 153
Peru [1] ... 86
  Trade of United States with ... **139**, 124, 125, 130
Petroleum and petroleum products ... **292**, 10, 11, 30, 38, 57, 72, 262–265, 613, 624
Petroleum jelly ... 306
Pharmaceutical preparations. *See* Drugs, etc.
Philippine Islands ... 212, 219, 234
  Trade of United States with ... **157**, 123–127, 153
Phosphates ... 573, 576
Photoradiogram service ... 633
Physical volume of foreign trade ... 88
Pickles, preserves, and sauces ... 253, 256
Pig iron. *See* Iron and steel.
Pipes and tubes ... 362, 368, 375, 378, 389
Plastics ... 564
Plows and cultivators ... 424
Plumbers' supplies ... 362
Plumbing codes ... 332
Plumbing fixtures ... 377
Pocketbooks, etc ... 544
Poland [1] ... 196, 234, 266, 667
  Trade of United States with ... **150**, 140
Population, growth of ... 169, 170
Pork ... **237**, **239**, 72
Porto Rico [1] ... 212, 218
  Trade of United States with ... 126, 130, 232
Portugal, trade of United States with ... **152**, 140, 150
Portuguese Africa ... 161
Postal money orders ... 49, 50
Potassium compounds ... 564, 573, 576
Potatoes ... 41, 165–169, 172, 180, 182, 196
Pottery ... 30, 348
Poultry ... **248**, 40, 71, 78, 181, 236
Poultry products ... **248**, 165, 179
Power:
  Electric ... 265–272
  Industrial ... 21, 22, 260, 271
  Water ... 262, 267–269
Prices ... **66–81**
  Agricultural products ... **174–185**, 66–76, 78–81, 163, 190, 452
  Export and import ... 89, 190, 451
  Farm ... **180**, 66, 67, 78
  Foreign ... 76–78
  Retail ... **79–81**, 66, 67
  Wholesale ... **66–78**, 5, 14, 25, 26, 174–176
  See also individual commodities and foreign countries.
Printing and publishing ... **556**, 30, 32, 56, 57, 64, 545, 546

---

[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Production, general review and statistics **1–3**
Proportion exported 90–96
  See also individual commodities and industries.
Proprietary medicines 564
Prunes 253, 256
Public buildings and works, construction 312, 317, 320, 321, 323–325
Public utilities 260, 265
  Construction 312, 317, 320, 321, 323, 324
Pulp, wood. *See* Wood pulp.
Pyroxylin 570, 573, 577
Radio apparatus and communication **632**, 419, 421
Railroad repair shops 28–30, 32
Rails, steel 366, 368, 375, 378, 382
Railway equipment **415**, 10–13, 30, 57, 366, 415, 600
Railway stocks and bonds 659
Railways **578**, 57, 59, 260, 265
Raisins 253, 256
Ramie 516
Rates:
  Electric light 270, 271
  Manufactured gas 292
  Railway 589, 590
  See also Exchange; Interest.
Raw materials 2, 37
  Foreign trade in 96–102, 118, 119
  See also individual commodities.
Rayon 562
Rayon manufactures. *See* Silk.
Real-estate conveyances 50
Receipts and disbursements, United States Government 227, 663
Receivership, railroad 598
Refrigerators 337, 406, 407
Registration of motor vehicles 430, 431, 445, 607, 608
Religious buildings construction 320, 321, 325
Research, effect on industry 20, 333
Residential construction 312, 315, 317, 320, 321, 327
Retail prices **79**, 66, 67
Retail trade, sales **45**, 2
Rice 11, 41, 168, 169, 172, 173, 189
River traffic 609, 611, 612
Road construction 324
Rolling mills, steel 362
Roofing, prepared 10, 11
Rope, wire 375
Rosin. *See* Turpentine.
Rubber and rubber products **449**, 27–30, 32, 72
Rumania [1] 196, 203, 667
  Trade of United States with **152**, 140
Russia [1] 196, 203, 345, 667
  Trade of United States with **150**, 124, 125, 140, 153
Rye **167–185**, 41, 72, 192–196, 199
Sales, manufacturers' 10, 13
  Wholesale and retail **42**, 2
Salmon 257–259
Salt 562
Salvador, trade of United States with 130
Samos 126
Sand and gravel **358**
Sardines 257, 259

Page
Sault Ste. Marie Canal, traffic 610
Sausage 245
Savings **651**, 21
  See also Banks.
Scandinavian countries:
  Trade of United States with **142**, 123–125
School buildings, construction 317, 320, 321, 325
Screening 375
Securities, prices, sales, and issues **659**, 598
  See also Banking and finance.
Seeds 165, 189
Sewer construction 324
Sewer pipe 354
Sheep **236**, 40, 72, 181–183
Sheets and plates, steel 366, 368, 375, 378, 382
Shipbuilding 10, 11, 30, 366, 619, 620
Shipping, ocean **614**
  See also Inland water transportation.
Shipping Board, United States 619
Shoe findings **542**, 541
Shoes. *See* Boots and shoes.
Siam,[1] trade of United States with **156**, 153
Signal and train control, railways 602
Silk and rayon manufactures **508**, 30, 71, 72, 470
Silver:
  Movement of 84
  Prices 656
  Production 38
Simplified practice **33–37**, 347, 359, 369, 401, 409, 438, 471, 551, 559, 566
Sisal 516
Skelp 368
Snuff 11, 30, 226, 227
Soap 30, 562, 563, 570, 572, 573, 575, 576
Social and recreational building construction 320, 321, 325
Sodas and sodium compounds 564, 573, 576, 612
Sole leather 9, 11, 72, 524, 526, 531
Sorghums, grain 168, 169, 172
Soups, canned 253
South Africa. *See* Union of South Africa.
South America:
  Trade of United States with **130**, 113–122
Spain [1] 196, 234, 266, 619
  Trade of United States with **152**, 124, 125, 140, 150
Starch 11
Steamship lines 605
Steel. *See* Iron and steel.
Steel bars 366, 368, 375, 378, 382
Steelworks 362
Stocks, corporate, prices, sales, and issues **659**, 598
Stone **347, 357**, 5–9, 11, 29, 30, 56, 610
Stoves and furnaces 30, 362, 377
Straits Settlements, trade of United States with **155**, 153
Street construction 324
Strikes in coal mines 272–274
Structural steel **352**, 30, 71, 72, 327, 366, 368, 375, 378, 382
Sugar and sugar industry **211**, 10, 11, 30, 41, 72, 165, 172, 189
Sulphur 569, 570, 573, 612

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[1] See also World production.

(Bold-type entries indicate major treatment of subject)

NOTE.—Material for foreign countries is only indexed under the name of the country

Page
Sulphuric acid 72, 563, 567, 573, 576
Sweden[1] 77, 234, 266, 345, 469, 555, 619
  Trade of United States with **142**, 140
Sweet potatoes 168, 169, 172, 173
Swine **236–244**, 40, 72, 181–183
Switzerland 77, 266, 267, 478
  Trade of United States with **148**, 140
Syria, trade of United States with 153
Tallow 245
Tankers 616
Tanning. *See* Leather.
Tanning materials. *See* Chemicals.
Tar 290, 576
Taxes 227, 592, 596, 664
Taxicabs 431, 607, 608
Telegraphs and telegraph apparatus **634**, 419, 421
Telephones and telephone apparatus **633**, 419, 421
Ten-cent stores 49
Tenure, farm 171
Textiles **470**, 6–9, 11, 28–30, 32, 55, 57, 65, 70–76
  See also Cotton; Wool.
Threshers 424
Ties, railroad 342
Tile, building 354
Timber. *See* Lumber.
Tin **400**, 72, 399
Tin cans 377
Tin and terne plates 368, 375, 378, 382
Tire ducks and fabrics 476
Tires, rubber **457–468**, 7, 10, 11
Tobacco and tobacco manufactures **219**, 5, 6, 9, 11, 12, 28–30, 32, 41, 56, 72, 165, 167, 169, 172, 173, 182, 183, 188, 189–191.
Tobago. *See* Trinidad.
Toilet preparations 563, 572, 573, 575, 076
  See also Soap; Perfumery and cosmetics.
Tomatoes, canned 253, 254
Tools 30, 362, 377
Tractors and traction engines 424
Trade:
  Continental United States with outlying possessions 126
  Foreign, of United States **82–162**
  Leading countries 86
  Retail 45
  Tobacco, foreign countries 234
  Wholesale **42**, 2
Trade acceptances 642
Transportation 578, 16-20, 22
Transportation equipment 28–30, 32
Trinidad, trade of United States with 130
Trucks, motor. *See* Automotive products.
Trunks 535, 544
Tubes. *See* Pipes.
Tuna fish 257
Tunis, trade of United States with 161
Turkey,[1] trade of United States with **152**, 140, 153
Turpentine and rosin 11, 39, 337, 562–564, 570, 572, 573, 575, 576
Typewriters and supplies 403, 404
Unfilled orders, for manufactured goods 4, 10, 13, 370, 416
Union of South Africa 196, 492
  Trade of United States with **162**, 124, 125, 161
Union wage rates 63, 64
United Kingdom[1] 77, 86, 196, 203, 234, 262, 266, 267, 382, 413, 455, 468, 478, 482, 492, 493, 615, 619, 667.
  Trade of United States with **143**, 123–125, 140, 203
United States Government engineering construction 324
United States Government, finance **663**
Uruguay 492
  Trade of United States with **137**, 130
Utensils, household 377
Varnishes. *See* Paints and varnishes.
Veal. *See* Beef and veal.
Vegetable oils 189
Vegetables 42, 78, 165, 172, 179, 188–191, 252, 256
Vehicles 56
  See also Automotive products.
Veneers 342
Venezuela 309
  Trade of United States with **135**, 124, 125, 130
Virgin Islands of the United States 126, 130
Wage earners 24–33
Wages **61–65**, 24–33, 186, 328, 501, 520, 590
Warrior River, traffic 612
Waste elimination 24, 603
Water power 262, 267–269
Water transportation **609–626**
Waterworks, construction 324
Wearing apparel **517**
Weather reports 628
West Indies, trade of United States with **134**, 130
  See also Cuba; British West Indies.
Wheat and flour **196**, 11, 12, 41, 72, 166–169, 172, 173, 180, 182–185, 192–196
Wholesale prices **66–78**, 5, 14, 25, 26, 174–179
Wholesale trade, sales **42**, 2
Windmills 424, 427
Wire 362, 375, 389
Wire cloth and screening 375
Wire rods 368, 375, 378
Wood and paper.
  See also Lumber; Paper.
Wood distillation 562–564, 11, 39
Wood utilization 346, 606
Wood pulp **546**, 30, 39, 57, 71
Wool **492**, 11, 12, 40, 72, 165, 181–183, 189, 470
Wool manufactures **492**, 30, 57, 65, 71, 72, 470, 472
World consumption of cotton 482
World production:
  Agricultural products 196, 203, 206, 212, 219
  Automobile 445
  Coal and petroleum 262, 285, 286, 309
  Metals 379, 381, 386
  Rubber 454
World trade. *See* International trade.
World's cotton spindles 478
Yeasts. *See* Baking powders.
Yugoslavia[1] 196, 667
  Trade of United States with **152**, 140
Zinc **394**, 11, 12, 38, 72, 383
Zoning, cities 331

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[1] See also World production.